



SEQUENCE LISTING

RECEIVED

MAR 11 2003

TECH CENTER 1600/2900

<110> Prayaga, Sudhirdas K

Shimkets, Richard A

Majumder, Kumud

Eisen, Andrew

Vernet, Corine

Spaderna, Steven K

Baumgartner, Jason

Gorman, Linda

Gusev, Vladimir

Padigaru, Muralidhara

Patturajan, Meera

Tchernev, Velizar

Li, Li

<120> ENDOZEPINE-LIKE POLYPEPTIDES AND POLYNUCLEOTIDES

ENCODING SAME
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<130> 15966-575CIP

<140> 10/083,919

<141> 2002-02-27

<150> 60/157,786

<151> 1999-10-05

<150> 60/164,164

<151> 1999-11-09

<150> 60/174,505

<151> 2000-01-04

<150> 60/183,859

<151> 2000-02-22

<150> 60/190,740

<151> 2000-03-20

<150> 60/191,133

<151> 2000-03-22

<150> 60/206,006

<151> 2000-05-19

<150> 60/215,684

<151> 2000-06-30

<150> 60/219,490

<151> 2000-07-20

<150> 60/227,072

<151> 2000-08-22

<150> 09/679,460

<151> 2000-10-04

<150> 09/679,740

<151> 2000-10-05

<150> 60/271,909

<151> 2001-02-27

<160> 202

<170> PatentIn Ver. 2.1

<210> 1

<211> 318

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (95)

<223> wherein n is a g or t

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cccgtagcgt atcaggagaa gctgctggtc tacggcttgt acaaacaggc cacccagggc 180
gactgcgaca tccccggccc tccggcctca gacgtgagag ccagggccaa gtgggaggct 240
tggagcgcga acaaaggggc gtccaaagatg gacgccatga ggggctacgc ggccaaagt 300
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318

<210> 2

<211> 107

<212> PRT

<213> Homo sapiens

<220>

<221> VARIANT

<222> (32)

<223> wherein Xaa is any amino acid

<400> 2

Asp Arg Val Val Thr Ala Thr Pro Thr Leu His Leu Gln Leu Leu Ala

1 5 10 15

Pro Gly Thr Ala Ser Thr Thr Pro Cys Ala Lys Trp Ser Ser Ser Xaa

20 25 30

Ala Ala Leu Lys Gln Leu Lys Gly Pro Val Ser Asp Gln Glu Lys Leu

35 40 45

Leu Val Tyr Gly Leu Tyr Lys Gln Ala Thr Gln Gly Asp Cys Asp Ile

50 55 60

Pro Gly Pro Pro Ala Ser Asp Val Arg Ala Arg Ala Lys Trp Glu Ala

65 70 75 80

Trp Ser Ala Asn Lys Gly Ala Ser Lys Met Asp Ala Met Arg Gly Tyr

85 90 95

Ala Ala Lys Val Glu Glu Leu Thr Lys Lys Glu

100

105

<210> 3

<211> 351

<212> DNA

<213> Homo sapiens

<400> 3

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gatgatgaag aactgaaaga actttatggg ctttacaaac aagctgtaat tggaaacatt 180
aatattgagt gttcagaaat gctagaatta aaaggcaagg ccaaattggg agcacagaac 240
ccccaaaaag gattgtcaga ggaagatatg atgcgtgcct ttatttctaa agccgaagag 300
ctgatagaaa aatatggaat tttagaataaa gcatacgata aattttcctt t 351

<210> 4

<211> 88

<212> PRT

<213> Homo sapiens

<400> 4

Met Ser Leu Gln Ala Asp Phe Asp Met Val Thr Glu Asp Val Arg Lys

1

5

10

15

Leu Lys Thr Arg Pro Asp Asp Glu Glu Leu Lys Glu Leu Tyr Gly Leu

20

25

30

Tyr Lys Gln Ala Val Ile Gly Asn Ile Asn Ile Glu Cys Ser Glu Met

35

40

45

Leu Glu Leu Lys Gly Lys Ala Lys Trp Glu Ala Gln Asn Pro Gln Lys

50

55

60

Gly Leu Ser Glu Glu Asp Met Met Arg Ala Phe Ile Ser Lys Ala Glu

65

70

75

80

Glu Leu Ile Glu Lys Tyr Gly Ile

85

<210> 5

<211> 565

<212> DNA

<213> Homo sapiens

<400> 5

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ccggcatggg tggcatgcag ctgtaatcac agctgctcg gaggctgagg cggagaatca 180
cttgagctgg gaagaaaaaaaaaaaaaa aagatgtgca ggtattaagc actttaagac 240
caagccagca gatgatgaga tgcggttcct ttacggccac tacaaacgag cgactgtagg 300
caacataaag acagaacggc cagggatggt ggacttcaag ggcaaagcca agtgggatcc 360
ctggaattta gtgaaagggg ctgccaggga agatcccattg aaagctaaag cttacgtcaa 420
aaaagttagaa gagttaaaga aaaaattcag aatacgagag actggaatttggccagcca 480
tgcccttgtc ctaaactgag acaatgcctt gtttttcta cactgtggat ggtggaaact 540

gatggaaaga atcagctaac ccatac

565

<210> 6

<211> 138

<212> PRT

<213> Homo sapiens

<400> 6

Met Ala Lys Pro Ile Ser Thr Lys Asn Thr Lys Ile Ser Arg His Gly

1 5 10 15

Trp His Ala Ala Val Ile Thr Ala Ala Arg Glu Ala Glu Ala Glu Asn

20 25 30

His Leu Ser Trp Glu Glu Lys Lys Lys Lys Arg Cys Ala Gly Ile

35 40 45

Lys His Phe Lys Thr Lys Pro Ala Asp Asp Glu Met Arg Phe Leu Tyr

50 55 60

Gly His Tyr Lys Arg Ala Thr Val Gly Asn Ile Lys Thr Glu Arg Pro

65 70 75 80

Gly Met Val Asp Phe Lys Gly Lys Ala Lys Trp Asp Pro Trp Asn Leu

85 90 95

Val Lys Gly Ala Ala Arg Glu Asp Pro Met Lys Ala Lys Ala Tyr Val

100 105 110

Lys Lys Val Glu Glu Leu Lys Lys Phe Arg Ile Arg Glu Thr Gly

115

120

125

Ile Val Ala Ser His Ala Phe Val Leu Asn

130

135

<210> 7

<211> 310

<212> DNA

<213> Homo sapiens

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ctatggcctt tacaaacaag caatagttgg agacattaat attgcgtgtc caggaatgct 180
agatttaaaa ggcaaagcca aatgggaagc atggaacctc aaaaaagggt tgcgacgga 240
agatgcgacg agtgcctata tttctaaagc aaaggagctg atagaaaaat acggaattta 300
gaatacagca

310

<210> 8

<211> 96

<212> PRT

<213> Homo sapiens

<400> 8

Met Leu Leu Leu Phe Val Cys Leu Phe Phe Leu Lys Ala Asp Phe Asp

1

5

10

15

Arg Ala Ala Glu Asp Val Arg Lys Leu Lys Ala Arg Pro Asp Asp Gly

20

25

30

Glu Leu Lys Glu Leu Tyr Gly Leu Tyr Lys Gln Ala Ile Val Gly Asp

35

40

45

Ile Asn Ile Ala Cys Pro Gly Met Leu Asp Leu Lys Gly Lys Ala Lys

50

55

60

Trp Glu Ala Trp Asn Leu Lys Lys Gly Leu Ser Thr Glu Asp Ala Thr

65

70

75

80

Ser Ala Tyr Ile Ser Lys Ala Lys Glu Leu Ile Glu Lys Tyr Gly Ile

85

90

95

<210> 9

<211> 280

<212> DNA

<213> Homo sapiens

<400> 9

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attggagaca ttaatattga gtatctggga atgctggact ttaaggccaa ggccaaatgc 180
gcagcatgga ccctccaaaa aaggttgtca aaggaagatg caacgagtgt ctctatttct 240
aaggcaaaag agccgataga aaaataggac atttagaata 280

<210> 10

<211> 86

<212> PRT

<213> Homo sapiens

<400> 10

Met Ala Leu Gln Ala Glu Phe Asp Lys Ala Ala Glu Asp Val Arg Lys

1 5 10 15

Leu Pro Thr Arg Pro Ala Asp Asn Lys Glu Leu Lys Lys Leu Asp Gly

20 25 30

Leu Tyr Lys Gln Ala Ile Ile Gly Asp Ile Asn Ile Glu Tyr Leu Gly

35 40 45

Met Leu Asp Phe Lys Gly Lys Ala Lys Cys Ala Ala Trp Thr Leu Gln

50 55 60

Lys Arg Leu Ser Lys Glu Asp Ala Thr Ser Val Ser Ile Ser Lys Ala

65 70 75 80

Lys Glu Pro Ile Glu Lys

85

<210> 11
<211> 267
<212> DNA
<213> Homo sapiens

<400> 11
accgcctcca ccacccatg tgccaagtgg agttcgagct gcgcgccct caaggcgtg 60
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cagggcgact gcgacatccc cggccctccg gcctcagacg tgagagccag ggccaagtgg 180
gaggcttgg agcgcgaacaa aggggcgtcc aagatggacg ccatgagggg ctacgcggcc 240
aaagtggagg agctgacgaa gaaggaa 267

<210> 12
<211> 89
<212> PRT
<213> Homo sapiens

<400> 12
Thr Ala Ser Thr Thr Pro Cys Ala Lys Trp Ser Ser Ser Cys Ala Ala
1 5 10 15

Leu Lys Gln Leu Lys Gly Pro Val Ser Asp Gln Glu Lys Leu Leu Val
20 25 30

Tyr Gly Leu Tyr Lys Gln Ala Thr Gln Gly Asp Cys Asp Ile Pro Gly
35 40 45

Pro Pro Ala Ser Asp Val Arg Ala Arg Ala Lys Trp Glu Ala Trp Ser

50

55

60

Ala Asn Lys Gly Ala Ser Lys Met Asp Ala Met Arg Gly Tyr Ala Ala

65

70

75

80

Lys Val Glu Glu Leu Thr Lys Lys Glu

85

<210> 13

<211> 481

<212> DNA

<213> Homo sapiens

<400> 13

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ggccggggat gtcgcagtcg ccctgggtgg cctgtttgtt caagccgtag accagcagct 180
tctcctgatc gtcacggga cccttcagct gcttgagggc cgcaaagctc gaactccact 240
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tggctgttac tactcgatct cagggggagg agacaggcac gcgatgttttgc tgtttgtca 360
agcacagatt gcaagctcg ggtccagcgt aaacccacc atgtttgggc tcacacggcg 420
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a

481

<210> 14

<211> 273

<212> DNA

<213> Homo sapiens

<400> 14

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ccgttagacca gcagcttctc ctgatcgctc acgggaccct tcagctgctt gagggcccg 180
cagctcgaac tccacttggc acatgggtg gtggaggcgg tccctggtgc tagaagctgg 240
aggtggagag ttggagtggc tgttactact cgc 273

<210> 15

<211> 20

<212> PRT

<213> Homo sapiens

<400> 15

Gln Ala Thr Gln Gly Asp Cys Asp Ile Pro Gly Pro Pro Ala Ser Asp

1

5

10

15

Val Arg Ala Arg

20

<210> 16

<211> 20

<212> PRT

<213> Homo sapiens

<400> 16

Gln Ala Val Ile Gly Asn Ile Asn Ile Glu Cys Ser Glu Met Leu Glu

1

5

10

15

Leu Lys Gly Lys

20

<210> 17

<211> 20

<212> PRT

<213> Homo sapiens

<400> 17

Arg Ala Thr Val Gly Asn Ile Lys Thr Glu Arg Pro Gly Met Val Asp

1

5

10

15

Phe Lys Gly Lys

20

<210> 18

<211> 18

<212> PRT

<213> Homo sapiens

<400> 18

Arg Ala Thr Val Gly Asn Ile Lys Thr Glu Arg Pro Gly Met Val Asp

1

5

10

15

Phe Lys

<210> 19

<211> 20

<212> PRT

<213> Homo sapiens

<400> 19

Gln Ala Ile Val Gly Asp Ile Asn Ile Ala Cys Pro Gly Met Leu Asp

1

5

10

15

Leu Lys Gly Lys

20

<210> 20

<211> 18

<212> PRT

<213> Homo sapiens

<400> 20

Gln Ala Ile Val Gly Asp Ile Asn Ile Ala Cys Pro Gly Met Leu Asp

1

5

10

15

Leu Lys

<210> 21

<211> 20

<212> PRT

<213> Homo sapiens

<400> 21

Gln Ala Ile Ile Gly Asp Ile Asn Ile Glu Tyr Leu Gly Met Leu Asp

1

5

10

15

Phe Lys Gly Lys

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<210> 22

<211> 1593

<212> DNA

<213> Homo sapiens

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cagaatgtcc ttcagagact gcagaaactg gaaacgctga ctgctgcaaa atcatcaaca 1440
tcaacattgc agactgctcc tcagcccacc tcatacaga gaccatcttgc gtggcccttc 1500
gagatgtctc ctggtgtgct aacgtttgcc atcatatggc ctttattgc acagtggttg 1560
gtgtatccat actatcaaag aaggagaagg taa 1593

<210> 23

<211> 530

<212> PRT

<213> Homo sapiens

<400> 23

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1 5 10 15

Leu Ile Pro Ala Asp Arg Pro Trp Asp Arg Gly Gln His Trp Gln Leu

20 25 30

Glu Met Ala Asp Thr Arg Ser Val His Glu Thr Arg Phe Glu Ala Ala

35 40 45

Val Lys Val Ile Gln Ser Leu Pro Lys Asn Gly Ser Phe Gln Pro Thr

50 55 60

Asn Glu Met Met Leu Lys Phe Tyr Ser Phe Tyr Lys Gln Ala Thr Glu

65 70 75 80

Gly Pro Cys Lys Leu Ser Arg Pro Gly Phe Trp Asp Pro Ile Gly Arg

85 90 95

Tyr Lys Trp Asp Ala Trp Ser Ser Leu Gly Asp Met Thr Lys Glu Glu

100 105 110

Ala Met Ile Ala Tyr Val Glu Glu Met Lys Lys Ile Ile Glu Thr Met

115 120 125

Pro Met Thr Glu Lys Val Glu Glu Leu Leu Arg Val Ile Gly Pro Phe

130 135 140

Tyr Glu Ile Val Glu Asp Lys Lys Ser Gly Arg Ser Ser Asp Ile Thr

145

150

155

160

Ser Val Arg Leu Glu Lys Ile Ser Lys Cys Leu Glu Asp Leu Gly Asn

165

170

175

Val Leu Thr Ser Thr Pro Asn Ala Lys Thr Val Asn Gly Lys Ala Glu

180

185

190

Ser Ser Asp Ser Gly Ala Glu Ser Glu Glu Glu Ala Gln Glu Glu

195

200

205

Val Lys Gly Ala Glu His Ser Asp Asn Asp Lys Lys Met Met Lys Lys

210

215

220

Ser Ala Asp His Lys Asn Leu Glu Val Ile Val Thr Asn Gly Tyr Asp

225

230

235

240

Lys Asp Gly Phe Val Gln Asp Ile Gln Asn Asp Ile His Ala Ser Ser

245

250

255

Ser Leu Asn Gly Arg Ser Thr Glu Glu Val Lys Pro Ile Asp Glu Asn

260

265

270

Leu Gly Gln Thr Gly Lys Ser Ala Val Cys Ile His Gln Gly Ile Asn

275

280

285

Asp Asp His Val Glu Asp Val Thr Gly Ile Gln His Leu Thr Ser Asp

290 295 300

Ser Asp Ser Glu Val Tyr Cys Asp Ser Met Glu Gln Phe Gly Gln Glu

305 310 315 320

Glu Ser Leu Asp Ser Phe Thr Ser Asn Asn Gly Pro Phe Gln Tyr Tyr

325 330 335

Leu Gly Gly His Ser Ser Gln Pro Met Glu Asn Ser Gly Phe Arg Glu

340 345 350

Asp Ile Gln Val Pro Pro Gly Asn Gly Asn Ile Gly Asn Met Gln Val

355 360 365

Val Ala Val Glu Gly Lys Gly Glu Val Lys His Gly Gly Glu Asp Gly

370 375 380

Arg Asn Asn Ser Gly Ala Pro His Arg Glu Lys Arg Gly Gly Glu Thr

385 390 395 400

Asp Glu Phe Ser Asn Val Arg Arg Gly Arg Gly His Arg Met Gln His

405 410 415

Leu Ser Glu Gly Thr Lys Gly Arg Gln Val Gly Ser Gly Gly Asp Gly

420 425 430

Glu Arg Trp Gly Ser Asp Arg Gly Ser Arg Gly Ser Leu Asn Glu Gln

435

440

445

Ile Ala Leu Val Leu Met Arg Leu Gln Glu Asp Met Gln Asn Val Leu

450

455

460

Gln Arg Leu Gln Lys Leu Glu Thr Leu Thr Ala Ala Lys Ser Ser Thr

465

470

475

480

Ser Thr Leu Gln Thr Ala Pro Gln Pro Thr Ser Ser Gln Arg Pro Ser

485

490

495

Trp Trp Pro Phe Glu Met Ser Pro Gly Val Leu Thr Phe Ala Ile Ile

500

505

510

Trp Pro Phe Ile Ala Gln Trp Leu Val Tyr Leu Tyr Tyr Gln Arg Arg

515

520

525

Arg Arg

530

<210> 24

<211> 17

<212> PRT

<213> Homo sapiens

<400> 24

Gln Ala Thr Glu Gly Pro Cys Lys Leu Ser Arg Pro Gly Phe Trp Asp

1

5

10

15

Pro

<210> 25

<211> 273

<212> DNA

<213> Homo sapiens

<400> 25

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taaatacaga atggcccagg atgttagacc tcaaaggcaa ggcaaagcag gatgcttgga 180
atgagctgaa agacactgcc aaggaagatg ctgtgaaagc tgatatcaac aaagtagaaag 240
agcggaaataaa aaaatacaga atataagaga ttg 273

<210> 26

<211> 86

<212> PRT

<213> Homo sapiens

<400> 26

Met Ser Gln Ala Phe Glu Lys Ala Ala Lys Asp Ile Lys His Leu Glu

1

5

10

15

Thr Lys Pro Ala Asp Asp Glu Arg Met Phe Ile Tyr Ser Arg Cys Lys

20

25

30

Gln Ala Thr Val His Asp Leu Asn Thr Glu Trp Pro Arg Met Leu Asp

35

40

45

Leu Lys Gly Lys Ala Lys Gln Asp Ala Trp Asn Glu Leu Lys Asp Thr

50

55

60

Ala Lys Glu Asp Ala Val Lys Ala Asp Ile Asn Lys Val Glu Glu Arg

65

70

75

80

Asn Lys Lys Tyr Arg Ile

85

<210> 27

<211> 20

<212> PRT

<213> Homo sapiens

<400> 27

Gln Ala Thr Val His Asp Leu Asn Thr Glu Trp Pro Arg Met Leu Asp

1

5

10

15

Leu Lys Gly Lys

20

<210> 28

<211> 315

<212> DNA

<213> Homo sapiens

<400> 28

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gagatgctgt tcatactatgg ccactacaaa caagcaactg tggcgacat aaatacagaa 180
cgccccggga tgttggactt cacgggcaag gccaagtggg atgcctggaa tgagctgaaa 240
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aaatacggga tatga

315

<210> 29

<211> 104

<212> PRT

<213> Homo sapiens

<400> 29

Met Trp Gly Asp Leu Trp Leu Leu Pro Pro Ala Ser Ala Asn Pro Gly

1

5

10

15

Thr Gly Thr Glu Ala Glu Phe Glu Lys Ala Ala Glu Glu Val Arg His

20

25

30

Leu Lys Thr Lys Pro Ser Asp Glu Glu Met Leu Phe Ile Tyr Gly His

35

40

45

Tyr Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met

50

55

60

Leu Asp Phe Thr Gly Lys Ala Lys Trp Asp Ala Trp Asn Glu Leu Lys

65

70

75

80

Gly Thr Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asn Lys Val Glu

85

90

95

Glu Leu Lys Lys Lys Tyr Gly Ile

100

<210> 30

<211> 20

<212> PRT

<213> Homo sapiens

<400> 30

Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met Leu Asp

1

5

10

15

Phe Thr Gly Lys

20

<210> 31

<211> 1080

<212> DNA

<213> Homo sapiens

<400> 31

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tccagtttga gtccttcatt ggaatcctct agtcaggtgg agcctggaac agacaggaaa 300
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gcaacagaga tgcttatttt tggaaagaag ttaacagcgg gagaggcatg tgctcaagga 840
cttgttactg aagtttccc tgatagcact tttcagaaag aagtctggac caggctgaag 900
gcatttgcaa agcttccccc aaatgccttg agaattcaa aagaggtaat cagaaaaaga 960
gagagagaaa aactacacgc tgttaatgct gaagaatgca atgtccttca gggaaagatgg 1020
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<210> 32

<211> 359

<212> PRT

<213> Homo sapiens

<400> 32

Met Arg Ala Ser Gln Lys Asp Phe Glu Asn Ser Met Asn Gln Val Lys
1 5 10 15

Leu Leu Lys Lys Asp Pro Gly Asn Glu Val Lys Leu Lys Leu Tyr Ala
20 25 30

Leu Tyr Lys Gln Ala Thr Glu Gly Pro Cys Asn Met Pro Lys Pro Gly
35 40 45

Val Phe Asp Leu Ile Asn Lys Ala Lys Trp Asp Ala Trp Asn Ala Leu
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Gly Ser Leu Pro Lys Glu Ala Ala Arg Gln Asn Tyr Val Asp Leu Val
65 70 75 80

Ser Ser Leu Ser Pro Ser Leu Glu Ser Ser Ser Gln Val Glu Pro Gly
85 90 95

Thr Asp Arg Lys Ser Thr Gly Phe Glu Thr Leu Val Val Thr Ser Glu
100 105 110

Asp Gly Ile Thr Lys Ile Met Phe Asn Arg Pro Lys Lys Asn Ala
115 120 125

Ile Asn Thr Glu Met Tyr His Glu Ile Met Arg Ala Leu Lys Ala Ala
130 135 140

Ser Lys Asp Asp Ser Ile Ile Thr Val Leu Thr Gly Asn Gly Asp Tyr

145

150

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Tyr Ser Ser Gly Asn Asp Leu Thr Asn Phe Thr Asp Ile Pro Pro Gly

165

170

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Gly Val Glu Glu Lys Ala Lys Asn Asn Ala Val Leu Leu Arg Glu Phe

180

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Val Gly Cys Phe Ile Asp Phe Pro Lys Pro Leu Ile Ala Val Val Asn

195

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Gly Pro Ala Val Gly Ile Ser Val Thr Leu Leu Gly Leu Phe Asp Ala

210

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Val Tyr Ala Ser Asp Arg Ala Thr Phe His Thr Pro Phe Ser His Leu

225

230

235

240

Gly Gln Ser Pro Glu Gly Cys Ser Ser Tyr Thr Phe Pro Lys Ile Met

245

250

255

Ser Pro Ala Lys Ala Thr Glu Met Leu Ile Phe Gly Lys Lys Leu Thr

260

265

270

Ala Gly Glu Ala Cys Ala Gln Gly Leu Val Thr Glu Val Phe Pro Asp

275

280

285

Ser Thr Phe Gln Lys Glu Val Trp Thr Arg Leu Lys Ala Phe Ala Lys

290

295

300

Leu Pro Pro Asn Ala Leu Arg Ile Ser Lys Glu Val Ile Arg Lys Arg

305

310

315

320

Glu Arg Glu Lys Leu His Ala Val Asn Ala Glu Glu Cys Asn Val Leu

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Gln Gly Arg Trp Leu Ser Asp Glu Cys Thr Asn Ala Val Val Asn Phe

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350

Leu Ser Arg Lys Ser Lys Leu

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<210> 33

<211> 20

<212> PRT

<213> Homo sapiens

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Leu Ile Asn Lys

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Ser Pro Glu Ile Glu Glu Thr Ser Cys Leu Ala Glu Leu Phe Glu Lys

35 40 45

Ala Ala Ala His Leu Gln Gly Leu Ile Gln Val Ala Ser Arg Glu Gln

50 55 60

Leu Leu Tyr Leu Tyr Ala Arg Tyr Lys Gln Val Lys Val Gly Asn Cys
65 70 75 80

Asn Thr Pro Lys Pro Ser Phe Phe Asp Phe Glu Gly Lys Gln Lys Trp
85 90 95

Glu Ala Trp Lys Ala Leu Gly Asp Ser Ser Pro Ser Gln Ala Met Gln
100 105 110

Glu Tyr Ile Ala Val Val Lys Lys Leu Asp Pro Gly Trp Asn Pro Gln
115 120 125

Ile Pro Glu Lys Lys Gly Lys Glu Ala Asn Thr Gly Phe Gly Gly Pro
130 135 140

Val Ile Ser Ser Leu Tyr His Glu Glu Thr Ile Arg Glu Glu Asp Lys
145 150 155 160

Asn Ile Phe Asp Tyr Cys Arg Glu Asn Asn Ile Asp His Ile Thr Lys
165 170 175

Ala Ile Lys Ser Lys Asn Val Asp Val Asn Val Lys Asp Glu Glu Gly
180 185 190

Arg Ala Leu Leu His Trp Ala Cys Asp Arg Gly His Lys Glu Leu Val
195 200 205

Thr Val Leu Leu Gln His Arg Ala Asp Ile Asn Cys Gln Asp Asn Glu

210

215

220

Gly Gln Thr Ala Leu His Tyr Ala Ser Ala Cys Glu Phe Leu Asp Ile

225

230

235

240

Val Glu Leu Leu Leu Gln Ser Gly Ala Asp Pro Thr Leu Arg Asp Gln

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Phe Glu Gly Lys

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Xaa Lys Gly Xaa

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Phe Xaa Gly Lys

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Xaa Gly Lys

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Xaa Xaa Gly Lys
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<210> 45
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Phe Xaa Gly Lys

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<212> DNA

<213> Homo sapiens

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Leu Arg Pro Ala Pro Pro Thr Ala Ser Ala Ala His Ala Gln Ser Ser

20 25 30

Arg Thr Ser Ala Pro Ser Ala Gln Arg Arg Leu Pro Ala Glu Pro Ser

35 40 45

His Gln Pro Ser Ala Pro Gly Thr Ala Ser Thr Thr Pro Cys Ala Lys

50 55 60

Trp Ser Ser Ser Cys Ala Ala Leu Lys Gln Leu Lys Gly Pro Val Ser

65 70 75 80

Asp Gln Glu Lys Leu Leu Val Tyr Gly Leu Tyr Lys Gln Ala Thr Gln

85 90 95

Gly Asp Cys Asp Ile Pro Gly Pro Pro Ala Ser Asp Val Arg Ala Arg

100 105 110

Ala Lys Trp Glu Ala Trp Ser Ala Asn Lys Gly Ala Ser Lys Met Asp

115 120 125

Ala Met Arg Gly Tyr Ala Ala Lys Val Glu Glu Leu Thr Lys Lys Glu

130

135

140

Val Gly Gly Val Glu Arg Glu Gln Arg Gly Val Gln Asp Gly Arg His

145

150

155

160

Glu Gly Leu Arg Gly Gln Ser Gly Gly Ala Asp Glu Glu Gly Arg Ala

165

170

175

Ser Lys Met Asp Ala Met Arg Gly Tyr Ala Ala Lys Val Glu Glu Leu

180

185

190

Thr Lys Lys Glu Val Gly Gly Val Glu Arg Glu Gln Arg Gly Val Gln

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205

Asp Gly Arg His Glu Gly Leu Arg Gly Gln Ser Glu Glu Met Arg Lys

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215

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Lys Glu Ala Gly

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<211> 191

<212> PRT

<213> Homo sapiens

<400> 49

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Leu Arg Pro Ala Pro Pro Thr Ala Ser Ala Ala His Ala Ser Pro His

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Glu Arg Ala Arg Gln Ala Ser Arg Ala Phe Arg Gln Ser Pro Pro Thr

35 40 45

Ser Pro Gln Leu Leu Ala Pro Gly Thr Ala Ser Thr Thr Pro Cys Ala

50 55 60

Lys Trp Ser Ser Ser Cys Ala Ala Leu Lys Gln Leu Lys Gly Pro Val
65 70 75 80

Ser Asp Gln Glu Lys Leu Leu Val Tyr Gly Leu Tyr Lys Gln Ala Thr
85 90 95

Gln Gly Asp Cys Asp Ile Pro Gly Pro Pro Ala Ser Asp Val Arg Ala
100 105 110

Arg Ala Lys Trp Glu Ala Trp Ser Ala Lys Lys Gly Ala Ser Lys Met
115 120 125

Asp Ala Met Arg Gly Tyr Ala Ala Lys Val Glu Glu Leu Thr Lys Lys
130 135 140

Glu Val Gly Gly Val Glu Arg Glu Gln Arg Gly Val Gln Asp Gly Arg
145 150 155 160

His Glu Gly Leu Arg Gly Gln Ser Gly Gly Ala Asp Glu Glu Gly Ser
165 170 175

Gly Gly Arg Gly Ala Arg Thr Lys Gly Arg Pro Arg Trp Thr Pro
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<210> 50

<211> 294

<212> DNA

<213> Homo sapiens

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gtaattggaa acattaatat tgagtgttca gaaatgctag aattaaaagg caaggccaaa 180
tgccaaggcac agaaccccc aaaaaggattt tcagaggaag atatgatgcg tgcccttatt 240
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<210> 51

<211> 293

<212> DNA

<213> Homo sapiens

<400> 51

gctgaatcaa ccatgtcacc ccaggcagat tttgacaaag cagcagggga tgtaaagaaa 60
ttgaaaacaa aaccaactga cgatgaactg aaggaactgt acggactcta caagcagtcc 120
actgttgggg acataaatat agagtgtcct ggcatgctag atctgaaggg caaggccaaag 180
tgggacgcat ggaacctaaa gaaaggctt tctaaggaag atgcgatgag cgcttatgtt 240
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<210> 52

<211> 85

<212> PRT

<213> Homo sapiens

<400> 52

Gln Ala Asp Phe Asp Met Val Thr Glu Asp Val Arg Lys Leu Lys Thr

1 5 10 15

Arg Pro Asp Asp Glu Glu Leu Lys Glu Leu Tyr Gly Leu Tyr Lys Gln

20 25 30

Ala Val Ile Gly Asn Ile Asn Ile Glu Cys Ser Glu Met Leu Glu Leu

35 40 45

Lys Gly Lys Ala Lys Trp Glu Ala Gln Asn Pro Gln Lys Gly Leu Ser

50 55 60

Glu Glu Asp Met Met Arg Ala Phe Ile Ser Lys Ala Glu Glu Leu Ile

65 70 75 80

Glu Lys Tyr Gly Ile

85

<210> 53

<211> 85

<212> PRT

<213> Homo sapiens

<400> 53

Gln Ala Asp Phe Asp Glu Ala Ala Glu Glu Val Lys Lys Leu Lys Thr

1 5 10 15

Arg Pro Thr Asp Glu Glu Leu Lys Glu Leu Tyr Gly Phe Tyr Lys Gln

20

25

30

Ala Thr Val Gly Asp Ile Asn Ile Glu Cys Pro Gly Met Leu Asp Leu

35

40

45

Lys Gly Lys Ala Lys Trp Glu Ala Trp Asn Leu Lys Lys Gly Ile Ser

50

55

60

Lys Glu Asp Ala Met Asn Ala Tyr Ile Ser Lys Ala Lys Thr Met Val

65

70

75

80

Glu Lys Tyr Gly Ile

85

<210> 54

<211> 86

<212> PRT

<213> Homo sapiens

<400> 54

Ser Gln Ala Glu Phe Glu Lys Ala Ala Glu Glu Val Lys Asn Leu Lys

1

5

10

15

Thr Lys Pro Ala Asp Asp Glu Met Leu Phe Ile Tyr Ser His Tyr Lys

20

25

30

Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Ile Leu Asp

35

40

45

Leu Lys Gly Lys Ala Lys Trp Asp Ala Trp Asn Gly Leu Lys Gly Thr

50

55

60

Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asn Lys Val Glu Glu Leu

65

70

75

80

Lys Lys Lys Tyr Gly Ile

85

<210> 55

<211> 86

<212> PRT

<213> Homo sapiens

<400> 55

Ser Gln Ala Glu Phe Asp Lys Ala Ala Glu Glu Val Lys His Leu Lys

1

5

10

15

Thr Lys Pro Ala Asp Glu Glu Met Leu Phe Ile Tyr Ser His Tyr Lys

20

25

30

Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met Leu Asp

35

40

45

Phe Lys Gly Lys Ala Lys Trp Asp Ala Trp Asn Glu Leu Lys Gly Thr

50 55 60

Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asp Lys Val Glu Glu Leu

65 70 75 80

Lys Lys Lys Tyr Gly Ile

85

<210> 56

<211> 86

<212> PRT

<213> Homo sapiens

<400> 56

Ser Gln Ala Glu Phe Glu Lys Ala Ala Glu Glu Val Arg His Leu Lys

1 5 10 15

Thr Lys Pro Ser Asp Glu Glu Met Leu Phe Ile Tyr Gly His Tyr Lys

20 25 30

Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met Leu Asp

35 40 45

Phe Thr Gly Lys Ala Lys Trp Asp Ala Trp Asn Glu Leu Lys Gly Thr

50 55 60

Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asn Lys Val Glu Glu Leu

65

70

75

80

Lys Lys Lys Tyr Gly Ile

85

<210> 57

<211> 88

<212> PRT

<213> Homo sapiens

<400> 57

Met Ser Leu Gln Ala Asp Phe Asp Met Val Thr Glu Asp Val Arg Lys

1

5

10

15

Leu Lys Thr Arg Pro Asp Asp Glu Glu Leu Lys Glu Leu Tyr Gly Leu

20

25

30

Tyr Lys Gln Ala Val Ile Gly Asn Ile Asn Ile Glu Cys Ser Glu Met

35

40

45

Leu Glu Leu Lys Gly Lys Ala Lys Trp Glu Ala Gln Asn Pro Gln Lys

50

55

60

Gly Leu Ser Glu Glu Asp Met Met Arg Ala Phe Ile Ser Lys Ala Glu

65

70

75

80

Glu Leu Ile Glu Lys Tyr Gly Ile

85

<210> 58

<211> 82

<212> PRT

<213> Homo sapiens

<400> 58

Lys Arg Cys Ala Gly Ile Lys His Phe Lys Thr Lys Pro Ala Asp Asp

1

5

10

15

Glu Met Arg Phe Leu Tyr Gly His Tyr Lys Arg Ala Thr Val Gly Asn

20

25

30

Ile Lys Thr Glu Arg Pro Gly Met Val Asp Phe Lys Gly Lys Ala Lys

35

40

45

Trp Asp Pro Trp Asn Leu Val Lys Gly Ala Ala Arg Glu Asp Pro Met

50

55

60

Lys Ala Lys Ala Tyr Val Lys Lys Val Glu Glu Leu Lys Lys Lys Phe

65

70

75

80

Arg Ile

<210> 59

<211> 80

<212> PRT

<213> Homo sapiens

<400> 59

Lys Ala Ala Glu Glu Val Lys His Leu Lys Thr Lys Pro Ala Asp Glu

1

5

10

15

Glu Met Leu Phe Ile Tyr Ser His Tyr Lys Gln Ala Thr Val Gly Asp

20

25

30

Ile Asn Thr Glu Arg Pro Gly Met Leu Asp Phe Lys Gly Lys Ala Lys

35

40

45

Trp Asp Ala Trp Asn Glu Leu Lys Gly Thr Ser Lys Glu Asp Ala Met

50

55

60

Lys Ala Tyr Ile Asp Lys Val Glu Glu Leu Lys Lys Tyr Gly Ile

65

70

75

80

<210> 60

<211> 91

<212> PRT

<213> Homo sapiens

<400> 60

Glu Lys Lys Lys Lys Arg Cys Ala Gly Ile Lys His Phe Lys Thr

1 5 10 15

Lys Pro Ala Asp Asp Glu Met Arg Phe Leu Tyr Gly His Tyr Lys Arg

20 25 30

Ala Thr Val Gly Asn Ile Lys Thr Glu Arg Pro Gly Met Val Asp Phe

35 40 45

Lys Gly Lys Ala Lys Trp Asp Pro Trp Asn Leu Val Lys Gly Ala Ala

50 55 60

Arg Glu Asp Pro Met Lys Ala Lys Ala Tyr Val Lys Lys Val Glu Glu

65 70 75 80

Leu Lys Lys Phe Arg Ile Arg Glu Thr Gly

85 90

<210> 61

<211> 88

<212> PRT

<213> Homo sapiens

<400> 61

Glu Ala Glu Phe Glu Lys Ala Ala Glu Glu Val Arg His Leu Lys Thr

1 5 10 15

Lys Pro Ser Asp Glu Glu Met Leu Phe Ile Tyr Gly His Tyr Lys Gln

20 25 30

Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met Leu Asp Phe

35 40 45

Thr Gly Lys Ala Lys Trp Asp Ala Trp Asn Glu Leu Lys Gly Thr Ser

50 55 60

Lys Glu Asp Ala Met Lys Ala Tyr Ile Asn Lys Val Glu Glu Leu Lys

65 70 75 80

Lys Lys Tyr Gly Ile Glu Thr Gly

85

<210> 62

<211> 138

<212> PRT

<213> Homo sapiens

<400> 62

Met Ala Lys Pro Ile Ser Thr Lys Asn Thr Lys Ile Ser Arg His Gly

1 5 10 15

Trp His Ala Ala Val Ile Thr Ala Ala Arg Glu Ala Glu Ala Glu Asn
20 25 30

His Leu Ser Trp Glu Glu Lys Lys Lys Lys Arg Cys Ala Gly Ile
35 40 45

Lys His Phe Lys Thr Lys Pro Ala Asp Asp Glu Met Arg Phe Leu Tyr
50 55 60

Gly His Tyr Lys Arg Ala Thr Val Gly Asn Ile Lys Thr Glu Arg Pro
65 70 75 80

Gly Met Val Asp Phe Lys Gly Lys Ala Lys Trp Asp Pro Trp Asn Leu
85 90 95

Val Lys Gly Ala Ala Arg Glu Asp Pro Met Lys Ala Lys Ala Tyr Val
100 105 110

Lys Lys Val Glu Glu Leu Lys Lys Phe Arg Ile Arg Glu Thr Gly
115 120 125

Ile Val Ala Ser His Ala Phe Val Leu Asn
130 135

<211> 86

<212> PRT

<213> Bos taurus

<400> 63

Ser Gln Ala Glu Phe Asp Lys Ala Ala Glu Glu Val Lys His Leu Lys

1

5

10

15

Thr Lys Pro Ala Asp Glu Glu Met Leu Phe Ile Tyr Ser His Tyr Lys

20

25

30

Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met Leu Asp

35

40

45

Phe Lys Gly Lys Ala Lys Trp Asp Ala Trp Asn Glu Leu Lys Gly Thr

50

55

60

Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asp Lys Val Glu Glu Leu

65

70

75

80

Lys Lys Lys Tyr Gly Ile

85

<210> 64

<211> 86

<212> PRT

<213> Homo sapiens

<400> 64

Ser Gln Ala Glu Phe Glu Lys Ala Ala Glu Glu Val Arg His Leu Lys

1 5 10 15

Thr Lys Pro Ser Asp Glu Glu Met Leu Phe Ile Tyr Gly His Tyr Lys

20 25 30

Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met Leu Asp

35 40 45

Phe Thr Gly Lys Ala Lys Trp Asp Ala Trp Asn Glu Leu Lys Gly Thr

50 55 60

Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asn Lys Val Glu Glu Leu

65 70 75 80

Lys Lys Lys Tyr Gly Ile

85

<210> 65

<211> 256

<212> DNA

<213> Homo sapiens

<400> 65

aggctgattt tgacagggct gcagaagatg tgaggaagct gaaagcaaga ccagatgtg 60

gagaactcaaacttat gggctttaca aacaagcaat agttggagac attaatattg 120
cgtgtccagg aatgcttagat taaaaggca aagccaaatg ggaagcatgg aacctaaaa 180
aagggttgtc gacggaagat gcgcacgagtg cctatatttc taaagcaaag gagctgatag 240
aaaaatacgg aattta

256

<210> 66

<211> 256

<212> DNA

<213> Homo sapiens

<400> 66

aggcagattt tgacaaaagca gcaggggatg taaagaaatt gaaaacaaaa ccaactgacg 60
atgaactgaa ggaactgtac ggactctaca agcagtccac tggtggggac ataaatata 120
agtgtcctgg catgcttagat ctgaagggca aggccaaatg ggacgcattgg aacctaaaga 180
aaggcttgc taaaggaaat gcgatgagcg cttatgtttc taaagccat gagctgatag 240
aaaaatatgg cctgtta

256

<210> 67

<211> 258

<212> DNA

<213> Homo sapiens

<400> 67

aggctgattt tgacagggct gcagaagatg tgaggaagct gaaagcaaga ccagatgatg 60
gagaactgaa agaactctat gggctttaca aacaagcaat agttggagac attaatattg 120
cgtgtccagg aatgcttagat taaaaggca aagccaaatg ggaagcatgg aacctaaaa 180
aagggttgc gacggaagat gcgcacgagtg cctatatttc taaagcaaag gagctgatag 240
aaaaatacgg aattttaga

258

<210> 68
<211> 259
<212> DNA
<213> Homo sapiens

<400> 68

aggctgagtt tgagaaaagct gcagaggagg ttaggcacct taagaccaag ccatcgatg 60
aggagatgct gttcatctat ggccactaca aacaagcaac tgtggcgcac ataaatacag 120
aacggccccgg gatgttggac ttcacggca aggccaagtg ggatgcctgg aatgagctga 180
aagggacttc caaggaagat gccatgaaag cttacatcaa caaagttagaa gagctaaaga 240
aaaaatacgg gatatgaga 259

<210> 69
<211> 88
<212> PRT
<213> Homo sapiens

<400> 69

Phe Phe Leu Lys Ala Asp Phe Asp Arg Ala Ala Glu Asp Val Arg Lys

1	5	10	15
---	---	----	----

Leu Lys Ala Arg Pro Asp Asp Gly Glu Leu Lys Glu Leu Tyr Gly Leu

20	25	30
----	----	----

Tyr Lys Gln Ala Ile Val Gly Asp Ile Asn Ile Ala Cys Pro Gly Met

35	40	45
----	----	----

Leu Asp Leu Lys Gly Lys Ala Lys Trp Glu Ala Trp Asn Leu Lys Lys

50 55 60

Gly Leu Ser Thr Glu Asp Ala Thr Ser Ala Tyr Ile Ser Lys Ala Lys

65 70 75 80

Glu Leu Ile Glu Lys Tyr Gly Ile

85

<210> 70

<211> 89

<212> PRT

<213> Homo sapiens

<400> 70

Phe Phe Leu His Gln Ala Asp Phe Asp Glu Ala Ala Glu Glu Val Lys

1 5 10 15

Lys Leu Lys Thr Arg Pro Thr Asp Glu Glu Leu Lys Glu Leu Tyr Gly

20 25 30

Phe Tyr Lys Gln Ala Thr Val Gly Asp Ile Asn Ile Glu Cys Pro Gly

35 40 45

Met Leu Asp Leu Lys Gly Lys Ala Lys Trp Glu Ala Trp Asn Leu Lys

50 55 60

Lys Gly Ile Ser Lys Glu Asp Ala Met Asn Ala Tyr Ile Ser Lys Ala

65

70

75

80

Lys Thr Met Val Glu Lys Tyr Gly Ile

85

<210> 71

<211> 85

<212> PRT

<213> Homo sapiens

<400> 71

Lys Ala Asp Phe Asp Arg Ala Ala Glu Asp Val Arg Lys Leu Lys Ala

1

5

10

15

Arg Pro Asp Asp Gly Glu Leu Lys Glu Leu Tyr Gly Leu Tyr Lys Gln

20

25

30

Ala Ile Val Gly Asp Ile Asn Ile Ala Cys Pro Gly Met Leu Asp Leu

35

40

45

Lys Gly Lys Ala Lys Trp Glu Ala Trp Asn Leu Lys Lys Gly Leu Ser

50

55

60

Thr Glu Asp Ala Thr Ser Ala Tyr Ile Ser Lys Ala Lys Glu Leu Ile

65

70

75

80

Glu Lys Tyr Gly Ile

85

<210> 72

<211> 85

<212> PRT

<213> Homo sapiens

<220>

<221> VARIANT

<222> (1)

<223> wherein Xaa is any amino acid

<220>

<221> VARIANT

<222> (6)

<223> wherein Xaa is any amino acid

<220>

<221> VARIANT

<222> (9)

<223> wherein Xaa is any amino acid

<220>

<221> VARIANT

<222> (12)

<223> wherein Xaa is any amino acid

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<222> (16)

<223> wherein Xaa is any amino acid

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<222> (17)

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<222> (19)

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<222> (21)

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<222> (33)

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<222> (34)

<223> wherein Xaa is any amino acid

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<221> VARIANT

<222> (41)

<223> wherein Xaa is any amino acid

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<222> (55)

<223> wherein Xaa is any amino acid

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<222> (65)

<223> wherein Xaa is any amino acid

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<222> (69)

<223> wherein Xaa is any amino acid

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<222> (73)

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<220>

<221> VARIANT

<222> (77)

<223> wherein Xaa is any amino acid

<220>

<221> VARIANT

<222> (85)

<223> wherein Xaa is any amino acid

<400> 72

Xaa Ala Asp Phe Asp Xaa Ala Ala Xaa Asp Val Xaa Lys Leu Lys Xaa

1 5 10 15

Xaa Pro Xaa Asp Xaa Glu Leu Lys Glu Leu Tyr Gly Leu Tyr Lys Gln

20 25 30

Xaa Xaa Val Gly Asp Ile Asn Ile Xaa Cys Pro Gly Met Leu Asp Leu

35 40 45

Lys Gly Lys Ala Lys Trp Xaa Ala Trp Asn Leu Lys Lys Gly Leu Ser

50 55 60

Xaa Glu Asp Ala Xaa Ser Ala Tyr Xaa Ser Lys Ala Xaa Glu Leu Ile

65 70 75 80

Glu Lys Tyr Gly Xaa

85

<210> 73

<211> 85

<212> PRT

<213> Homo sapiens

<400> 73

Gln Ala Asp Phe Asp Lys Ala Ala Gly Asp Val Lys Lys Leu Lys Thr

1 5 10 15

Lys Pro Thr Asp Asp Glu Leu Lys Glu Leu Tyr Gly Leu Tyr Lys Gln
20 25 30

Ser Thr Val Gly Asp Ile Asn Ile Glu Cys Pro Gly Met Leu Asp Leu
35 40 45

Lys Gly Lys Ala Lys Trp Asp Ala Trp Asn Leu Lys Lys Gly Leu Ser
50 55 60

Lys Glu Asp Ala Met Ser Ala Tyr Val Ser Lys Ala His Glu Leu Ile
65 70 75 80

Glu Lys Tyr Gly Leu
85

<210> 74

<211> 96

<212> PRT

<213> Homo sapiens

<400> 74

Met Leu Leu Leu Phe Val Cys Leu Phe Phe Leu Lys Ala Asp Phe Asp
1 5 10 15

Arg Ala Ala Glu Asp Val Arg Lys Leu Lys Ala Arg Pro Asp Asp Gly

20 25 30

Glu Leu Lys Glu Leu Tyr Gly Leu Tyr Lys Gln Ala Ile Val Gly Asp

35 40 45

Ile Asn Ile Ala Cys Pro Gly Met Leu Asp Leu Lys Gly Lys Ala Lys

50 55 60

Trp Glu Ala Trp Asn Leu Lys Lys Gly Leu Ser Thr Glu Asp Ala Thr

65 70 75 80

Ser Ala Tyr Ile Ser Lys Ala Lys Glu Leu Ile Glu Lys Tyr Gly Ile

85 90 95

<210> 75

<211> 88

<212> PRT

<213> Frog

<400> 75

Met Ser Pro Gln Ala Asp Phe Asp Lys Ala Ala Gly Asp Val Lys Lys

1 5 10 15

Leu Lys Thr Lys Pro Thr Asp Asp Glu Leu Lys Glu Leu Tyr Gly Leu

20

25

30

Tyr Lys Gln Ser Thr Val Gly Asp Ile Asn Ile Glu Cys Pro Gly Met

35

40

45

Leu Asp Leu Lys Gly Lys Ala Lys Trp Asp Ala Trp Asn Leu Lys Lys

50

55

60

Gly Leu Ser Lys Glu Asp Ala Met Ser Ala Tyr Val Ser Lys Ala His

65

70

75

80

Glu Leu Ile Glu Lys Tyr Gly Leu

85

<210> 76

<211> 103

<212> PRT

<213> Duck

<400> 76

Met Phe Gln Ala His Leu Leu Arg Gly Thr Leu Thr Leu Ser Phe Phe

1

5

10

15

Leu His Gln Ala Asp Phe Asp Glu Ala Ala Glu Glu Val Lys Lys Leu

20

25

30

Lys Thr Arg Pro Thr Asp Glu Glu Leu Lys Glu Leu Tyr Gly Phe Tyr

35

40

45

Lys Gln Ala Thr Val Gly Asp Ile Asn Ile Glu Cys Pro Gly Met Leu

50

55

60

Asp Leu Lys Gly Lys Ala Lys Trp Glu Ala Trp Asn Leu Lys Lys Gly

65

70

75

80

Ile Ser Lys Glu Asp Ala Met Asn Ala Tyr Ile Ser Lys Ala Lys Thr

85

90

95

Met Val Glu Lys Tyr Gly Ile

100

<210> 77

<211> 87

<212> PRT

<213> Homo sapiens

<400> 77

Met Ser Gln Ala Glu Phe Glu Lys Ala Ala Glu Glu Val Arg His Leu

1

5

10

15

Lys Thr Lys Pro Ser Asp Glu Glu Met Leu Phe Ile Tyr Gly His Tyr

20

25

30

Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met Leu

35

40

45

Asp Phe Thr Gly Lys Ala Lys Trp Asp Ala Trp Asn Glu Leu Lys Gly

50

55

60

Thr Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asn Lys Val Glu Glu

65

70

75

80

Leu Lys Lys Lys Tyr Gly Ile

85

<210> 78

<211> 274

<212> DNA

<213> Homo sapiens

<400> 78

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caagaccagc agataataaa gaactgaaaa aactcgatgg actttacaaa caagctataa 120
ttggagacat taatatttag tatctggaa tgctggactt taagggcaag gccaaatgcg 180
cagcatggac cctccaaaaa agttgtcaa aggaagatgc aacgagtgtc tctatttcta 240
aggcaaaaga gcccataaaaaa aaataggaca ttta 274

<210> 79

<211> 271

<212> DNA

<213> Homo sapiens

<400> 79

caaccatgtc accccaggca gatttgaca aagcagcagg ggatgtaaag aaattgaaaa 60
caaaaccaac tgacgatgaa ctgaaggaac tgtacggact ctacaagcag tccactgtt 120
gggacataaa tatagagtgt cctggcatgc tagatctgaa gggcaaggcc aagtgggacg 180
catggAACCT aaagaaaggc ttgtctaagg aagatgcgt gagcgcttat gtttctaaag 240
cccatgagct gatagaaaaa tatggcctgt a . 271

<210> 80

<211> 262

<212> DNA

<213> Homo sapiens

<400> 80

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aataaagaac tgaaaaaaact cgatggactt tacaaacaag ctataattgg agacattaat 120
attgagtatc tggaatgct ggactttaag ggcaaggcca aatgcgcagc atggaccctc 180
caaaaaaggt tgtcaaagga agatgcaacg agtgtctcta tttctaaggc aaaagagccg 240
atagaaaaat aggacattta ga . 262

<210> 81

<211> 260

<212> DNA

<213> Homo sapiens

<400> 81

caggctgagt ttgagaaaagc tgcagaggag gtttaggcacc ttaagaccaa gccatcgat 60
gaggagatgc tggcatctc tggccactac aaacaagcaa ctgtgggcga cataaataca 120

gaacggcccg ggatgttgg a cttcacggc aaggccaagt gggatgcctg gaatgagctg 180
aaaggactt ccaaggaaga tgc catgaaa gcttacatca acaaagtaga agagctaaag 240
aaaaaaatacg ggatatgaga 260

<210> 82

<211> 86

<212> PRT

<213> Homo sapiens

<400> 82

Met Ala Leu Gln Ala Glu Phe Asp Lys Ala Ala Glu Asp Val Arg Lys
1 5 10 15

Leu Pro Thr Arg Pro Ala Asp Asn Lys Glu Leu Lys Lys Leu Asp Gly
20 25 30

Leu Tyr Lys Gln Ala Ile Ile Gly Asp Ile Asn Ile Glu Tyr Leu Gly
35 40 45

Met Leu Asp Phe Lys Gly Lys Ala Lys Cys Ala Ala Trp Thr Leu Gln
50 55 60

Lys Arg Leu Ser Lys Glu Asp Ala Thr Ser Val Ser Ile Ser Lys Ala
65 70 75 80

Lys Glu Pro Ile Glu Lys

85

<210> 83

<211> 85

<212> PRT

<213> Homo sapiens

<400> 83

Met Ser Pro Gln Ala Asp Phe Asp Lys Ala Ala Gly Asp Val Lys Lys

1

5

10

15

Leu Lys Thr Lys Pro Thr Asp Asp Glu Leu Lys Glu Leu Tyr Gly Leu

20

25

30

Tyr Lys Gln Ser Thr Val Gly Asp Ile Asn Ile Glu Cys Pro Gly Met

35

40

45

Leu Asp Leu Lys Gly Lys Ala Lys Trp Asp Ala Trp Asn Leu Lys Lys

50

55

60

Gly Leu Ser Lys Glu Asp Ala Met Ser Ala Tyr Val Ser Lys Ala His

65

70

75

80

Glu Leu Ile Glu Lys

85

<210> 84

<211> 88

<212> PRT

<213> Frog

<400> 84

Met Ser Pro Gln Ala Asp Phe Asp Lys Ala Ala Gly Asp Val Lys Lys
1 5 10 15

Leu Lys Thr Lys Pro Thr Asp Asp Glu Leu Lys Glu Leu Tyr Gly Leu
20 25 30

Tyr Lys Gln Ser Thr Val Gly Asp Ile Asn Ile Glu Cys Pro Gly Met
35 40 45

Leu Asp Leu Lys Gly Lys Ala Lys Trp Asp Ala Trp Asn Leu Lys Lys
50 55 60

Gly Leu Ser Lys Glu Asp Ala Met Ser Ala Tyr Val Ser Lys Ala His
65 70 75 80

Glu Leu Ile Glu Lys Tyr Gly Leu
85

<210> 85

<211> 103

<212> PRT

<213> Duck

<400> 85

Met Phe Gln Ala His Leu Leu Arg Gly Thr Leu Thr Leu Ser Phe Phe

1

5

10

15

Leu His Gln Ala Asp Phe Asp Glu Ala Ala Glu Glu Val Lys Lys Leu

20

25

30

Lys Thr Arg Pro Thr Asp Glu Glu Leu Lys Glu Leu Tyr Gly Phe Tyr

35

40

45

Lys Gln Ala Thr Val Gly Asp Ile Asn Ile Glu Cys Pro Gly Met Leu

50

55

60

Asp Leu Lys Gly Lys Ala Lys Trp Glu Ala Trp Asn Leu Lys Lys Gly

65

70

75

80

Ile Ser Lys Glu Asp Ala Met Asn Ala Tyr Ile Ser Lys Ala Lys Thr

85

90

95

Met Val Glu Lys Tyr Gly Ile

100

<210> 86

<211> 87

<212> PRT

<213> Homo sapiens

<400> 86

Met Ser Gln Ala Glu Phe Glu Lys Ala Ala Glu Glu Val Arg His Leu
1 5 10 15

Lys Thr Lys Pro Ser Asp Glu Glu Met Leu Phe Ile Tyr Gly His Tyr
20 . 25 30

Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met Leu
35 40 45

Asp Phe Thr Gly Lys Ala Lys Trp Asp Ala Trp Asn Glu Leu Lys Gly
50 55 60

Thr Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asn Lys Val Glu Glu
65 70 75 80

Leu Lys Lys Tyr Gly Ile
85

<210> 87

<211> 86

<212> PRT

<213> Homo sapiens

<400> 87

Met Ala Leu Gln Ala Glu Phe Asp Lys Ala Ala Glu Asp Val Arg Lys
1 5 10 15

Leu Pro Thr Arg Pro Ala Asp Asn Lys Glu Leu Lys Lys Leu Asp Gly

20

25

30

Leu Tyr Lys Gln Ala Ile Ile Gly Asp Ile Asn Ile Glu Tyr Leu Gly

35

40

45

Met Leu Asp Phe Lys Gly Lys Ala Lys Cys Ala Ala Trp Thr Leu Gln

50

55

60

Lys Arg Leu Ser Lys Glu Asp Ala Thr Ser Val Ser Ile Ser Lys Ala

65

70

75

80

Lys Glu Pro Ile Glu Lys

85

<210> 88

<211> 530

<212> PRT

<213> Homo sapiens

<400> 88

Met Phe Gln Phe His Ala Gly Ser Trp Glu Ser Trp Cys Cys Cys Cys

1

5

10

15

Leu Ile Pro Ala Asp Arg Pro Trp Asp Arg Gly Gln His Trp Gln Leu

20

25

30

Glu Met Ala Asp Thr Arg Ser Val His Glu Thr Arg Phe Glu Ala Ala
35 40 45

Val Lys Val Ile Gln Ser Leu Pro Lys Asn Gly Ser Phe Gln Pro Thr
50 55 60

Asn Glu Met Met Leu Lys Phe Tyr Ser Phe Tyr Lys Gln Ala Thr Glu
65 70 75 80

Gly Pro Cys Lys Leu Ser Arg Pro Gly Phe Trp Asp Pro Ile Gly Arg
85 90 95

Tyr Lys Trp Asp Ala Trp Ser Ser Leu Gly Asp Met Thr Lys Glu Glu
100 105 110

Ala Met Ile Ala Tyr Val Glu Glu Met Lys Lys Ile Ile Glu Thr Met
115 120 125

Pro Met Thr Glu Lys Val Glu Glu Leu Leu Arg Val Ile Gly Pro Phe
130 135 140

Tyr Glu Ile Val Glu Asp Lys Lys Ser Gly Arg Ser Ser Asp Ile Thr
145 150 155 160

Ser Val Arg Leu Glu Lys Ile Ser Lys Cys Leu Glu Asp Leu Gly Asn
165 170 175

Val Leu Thr Ser Thr Pro Asn Ala Lys Thr Val Asn Gly Lys Ala Glu

180 185 190

Ser Ser Asp Ser Gly Ala Glu Ser Glu Glu Glu Ala Gln Glu Glu

195 200 205

Val Lys Gly Ala Glu His Ser Asp Asn Asp Lys Lys Met Met Lys Lys

210 215 220

Ser Ala Asp His Lys Asn Leu Glu Val Ile Val Thr Asn Gly Tyr Asp

225 230 235 240

Lys Asp Gly Phe Val Gln Asp Ile Gln Asn Asp Ile His Ala Ser Ser

245 250 255

Ser Leu Asn Gly Arg Ser Thr Glu Glu Val Lys Pro Ile Asp Glu Asn

260 265 270

Leu Gly Gln Thr Gly Lys Ser Ala Val Cys Ile His Gln Gly Ile Asn

275 280 285

Asp Asp His Val Glu Asp Val Thr Gly Ile Gln His Leu Thr Ser Asp

290 295 300

Ser Asp Ser Glu Val Tyr Cys Asp Ser Met Glu Gln Phe Gly Gln Glu

305 310 315 320

Glu Ser Leu Asp Ser Phe Thr Ser Asn Asn Gly Pro Phe Gln Tyr Tyr

325

330

335

Leu Gly Gly His Ser Ser Gln Pro Met Glu Asn Ser Gly Phe Arg Glu

340

345

350

Asp Ile Gln Val Pro Pro Gly Asn Gly Asn Ile Gly Asn Met Gln Val

355

360

365

Val Ala Val Glu Gly Lys Gly Glu Val Lys His Gly Gly Glu Asp Gly

370

375

380

Arg Asn Asn Ser Gly Ala Pro His Arg Glu Lys Arg Gly Gly Glu Thr

385

390

395

400

Asp Glu Phe Ser Asn Val Arg Arg Gly Arg Gly His Arg Met Gln His

405

410

415

Leu Ser Glu Gly Thr Lys Gly Arg Gln Val Gly Ser Gly Gly Asp Gly

420

425

430

Glu Arg Trp Gly Ser Asp Arg Gly Ser Arg Gly Ser Leu Asn Glu Gln

435

440

445

Ile Ala Leu Val Leu Met Arg Leu Gln Glu Asp Met Gln Asn Val Leu

450

455

460

Gln Arg Leu Gln Lys Leu Glu Thr Leu Thr Ala Ala Lys Ser Ser Thr

465

470

475

480

Ser Thr Leu Gln Thr Ala Pro Gln Pro Thr Ser Ser Gln Arg Pro Ser
485 490 495

Trp Trp Pro Phe Glu Met Ser Pro Gly Val Leu Thr Phe Ala Ile Ile
500 505 510

Trp Pro Phe Ile Ala Gln Trp Leu Val Tyr Leu Tyr Tyr Gln Arg Arg
515 520 525

Arg Arg
530

<210> 89
<211> 530
<212> PRT
<213> Homo sapiens

<400> 89
Met Phe Gln Phe His Ala Gly Ser Trp Glu Ser Trp Cys Cys Cys Cys
1 5 10 15

Cys Leu Ile Pro Gly Asp Arg Pro Trp Asp Arg Gly Arg Arg Trp Arg
20 25 30

Leu Glu Met Arg His Thr Arg Ser Val His Glu Thr Arg Phe Glu Ala
35 40 45

Ala Val Lys Val Ile Gln Ser Leu Pro Lys Asn Gly Ser Phe Gln Pro

50 55 60

Thr Asn Glu Met Met Leu Lys Phe Tyr Ser Phe Tyr Lys Gln Ala Thr

65 70 75 80

Glu Gly Pro Cys Lys Leu Ser Lys Pro Gly Phe Trp Asp Pro Val Gly

85 90 95

Arg Tyr Lys Trp Asp Ala Trp Ser Ser Leu Gly Asp Met Thr Lys Glu

100 105 110

Glu Ala Met Ile Ala Tyr Val Glu Glu Met Lys Lys Ile Leu Glu Thr

115 120 125

Met Pro Met Thr Glu Lys Val Glu Glu Leu Leu His Val Ile Gly Pro

130 135 140

Phe Tyr Glu Ile Val Glu Asp Lys Lys Ser Gly Arg Ser Ser Asp Leu

145 150 155 160

Thr Ser Val Arg Leu Glu Lys Ile Ser Lys Cys Leu Glu Asp Leu Gly

165 170 175

Asn Val Leu Ala Ser Thr Pro Asn Ala Lys Thr Val Asn Gly Lys Ala

180 185 190

Glu Ser Ser Asp Ser Gly Ala Glu Ser Glu Glu Glu Ala Ala Gln Glu

195 200 205

Asp Pro Lys Arg Pro Glu Pro Arg Asp Ser Asp Lys Lys Met Met Lys

210 215 220

Lys Ser Ala Asp His Lys Asn Leu Glu Ile Ile Val Thr Asn Gly Tyr

225 230 235 240

Asp Lys Asp Ser Phe Val Gln Gly Val Gln Asn Ser Ile His Thr Ser

245 250 255

Pro Ser Leu Asn Gly Arg Cys Thr Glu Glu Val Lys Ser Val Asp Glu

260 265 270

Asn Leu Glu Gln Thr Gly Lys Thr Val Val Phe Val His Gln Asp Val

275 280 285

Asn Ser Asp His Val Glu Asp Ile Ser Gly Ile Gln His Leu Thr Ser

290 295 300

Asp Ser Asp Ser Glu Val Tyr Cys Asp Ser Met Glu Gln Phe Gly Gln

305 310 315 320

Glu Glu Ser Leu Asp Gly Phe Ile Ser Asn Asn Gly Pro Phe Ser Tyr

325 330 335

Tyr Leu Gly Gly Asn Pro Ser Gln Pro Leu Glu Ser Ser Gly Phe Pro

340 345 350

Glu Ala Val Gln Gly Leu Pro Gly Asn Gly Ser Pro Glu Asp Met Gln

355 360 365

Gly Ala Val Val Glu Gly Lys Gly Glu Val Lys Arg Gly Gly Glu Asp

370 375 380

Gly Gly Ser Asn Ser Gly Ala Pro His Arg Glu Lys Arg Ala Gly Glu

385 390 395 400

Ser Glu Glu Phe Ser Asn Ile Arg Arg Gly Arg Gly His Arg Met Gln

405 410 415

His Leu Ser Glu Gly Ser Lys Gly Arg Gln Val Gly Ser Gly Gly Asp

420 425 430

Gly Glu Arg Trp Gly Ser Asp Arg Gly Ser Arg Gly Ser Leu Asn Glu

435 440 445

Gln Ile Ala Leu Val Leu Met Arg Leu Gln Glu Asp Met Gln Asn Val

450 455 460

Leu Gln Arg Leu His Lys Leu Glu Met Leu Ala Ala Ser Gln Ala Lys

465 470 475 480

Ser Ser Ala Leu Gln Thr Ser Asn Gln Pro Thr Ser Pro Arg Pro Ser

485 490 495

Trp Trp Pro Phe Glu Met Ser Pro Gly Ala Leu Thr Phe Ala Ile Ile

500

505

510

Trp Pro Phe Ile Ala Gln Trp Leu Val His Leu Tyr Tyr Gln Arg Arg

515

520

525

Arg Arg

530

<210> 90

<211> 86

<212> PRT

<213> Homo sapiens

<400> 90

Met Ser Gln Ala Phe Glu Lys Ala Ala Lys Asp Ile Lys His Leu Glu

1

5

10

15

Thr Lys Pro Ala Asp Asp Glu Arg Met Phe Ile Tyr Ser Arg Cys Lys

20

25

30

Gln Ala Thr Val His Asp Leu Asn Thr Glu Trp Pro Arg Met Leu Asp

35

40

45

Leu Lys Gly Lys Ala Lys Gln Asp Ala Trp Asn Glu Leu Lys Asp Thr

50

55

60

Ala Lys Glu Asp Ala Val Lys Ala Asp Ile Asn Lys Val Glu Glu Arg
65 70 75 80

Asn Lys Lys Tyr Arg Ile

85

<210> 91

<211> 87

<212> PRT

<213> Homo sapiens

<400> 91

Met Ser Gln Ala Glu Phe Asp Lys Ala Ala Glu Glu Val Lys His Leu
1 5 10 15

Lys Thr Lys Pro Ala Asp Glu Glu Met Leu Phe Ile Tyr Ser His Tyr
20 25 30

Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met Leu
35 40 45

Asp Phe Lys Gly Lys Ala Lys Trp Asp Ala Trp Asn Glu Leu Lys Gly
50 55 60

Thr Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asp Lys Val Glu Glu
65 70 75 80

Leu Lys Lys Lys Tyr Gly Ile

85

<210> 92

<211> 104

<212> PRT

<213> Homo sapiens

<400> 92

Met Trp Gly Asp Leu Trp Leu Leu Pro Pro Ala Ser Ala Asn Pro Gly

1

5

10

15

Thr Gly Thr Glu Ala Glu Phe Glu Lys Ala Ala Glu Glu Val Arg His

20

25

30

Leu Lys Thr Lys Pro Ser Asp Glu Glu Met Leu Phe Ile Tyr Gly His

35

40

45

Tyr Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met

50

55

60

Leu Asp Phe Thr Gly Lys Ala Lys Trp Asp Ala Trp Asn Glu Leu Lys

65

70

75

80

Gly Thr Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asn Lys Val Glu

85

90

95

Glu Leu Lys Lys Lys Tyr Gly Ile

100

<210> 93

<211> 104

<212> PRT

<213> Homo sapiens

<400> 93

Met Trp Gly Asp Leu Trp Leu Leu Pro Pro Ala Ser Ala Asn Pro Gly

1

5

10

15

Thr Gly Thr Glu Ala Glu Phe Glu Lys Ala Ala Glu Glu Val Arg His

20

25

30

Leu Lys Thr Lys Pro Ser Asp Glu Glu Met Leu Phe Ile Tyr Gly His

35

40

45

Tyr Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met

50

55

60

Leu Asp Phe Thr Gly Lys Ala Lys Trp Asp Ala Trp Asn Glu Leu Lys

65

70

75

80

Gly Thr Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asn Lys Val Glu

85

90

95

Glu Leu Lys Lys Lys Tyr Gly Ile

100

<210> 94

<211> 359

<212> PRT

<213> Homo sapiens

<400> 94

Met Arg Ala Ser Gln Lys Asp Phe Glu Asn Ser Met Asn Gln Val Lys

1

5

10

15

Leu Leu Lys Lys Asp Pro Gly Asn Glu Val Lys Leu Lys Leu Tyr Ala

20

25

30

Leu Tyr Lys Gln Ala Thr Glu Gly Pro Cys Asn Met Pro Lys Pro Gly

35

40

45

Val Phe Asp Leu Ile Asn Lys Ala Lys Trp Asp Ala Trp Asn Ala Leu

50

55

60

Gly Ser Leu Pro Lys Glu Ala Ala Arg Gln Asn Tyr Val Asp Leu Val

65

70

75

80

Ser Ser Leu Ser Pro Ser Leu Glu Ser Ser Ser Gln Val Glu Pro Gly

85

90

95

Thr Asp Arg Lys Ser Thr Gly Phe Glu Thr Leu Val Val Thr Ser Glu
100 105 110

Asp Gly Ile Thr Lys Ile Met Phe Asn Arg Pro Lys Lys Asn Ala
115 120 125

Ile Asn Thr Glu Met Tyr His Glu Ile Met Arg Ala Leu Lys Ala Ala
130 135 140

Ser Lys Asp Asp Ser Ile Ile Thr Val Leu Thr Gly Asn Gly Asp Tyr
145 150 155 160

Tyr Ser Ser Gly Asn Asp Leu Thr Asn Phe Thr Asp Ile Pro Pro Gly
165 170 175

Gly Val Glu Glu Lys Ala Lys Asn Asn Ala Val Leu Leu Arg Glu Phe
180 185 190

Val Gly Cys Phe Ile Asp Phe Pro Lys Pro Leu Ile Ala Val Val Asn
195 200 205

Gly Pro Ala Val Gly Ile Ser Val Thr Leu Leu Gly Leu Phe Asp Ala
210 215 220

Val Tyr Ala Ser Asp Arg Ala Thr Phe His Thr Pro Phe Ser His Leu
225 230 235 240

Gly Gln Ser Pro Glu Gly Cys Ser Ser Tyr Thr Phe Pro Lys Ile Met

245

250

255

Ser Pro Ala Lys Ala Thr Glu Met Leu Ile Phe Gly Lys Lys Leu Thr

260

265

270

Ala Gly Glu Ala Cys Ala Gln Gly Leu Val Thr Glu Val Phe Pro Asp

275

280

285

Ser Thr Phe Gln Lys Glu Val Trp Thr Arg Leu Lys Ala Phe Ala Lys

290

295

300

Leu Pro Pro Asn Ala Leu Arg Ile Ser Lys Glu Val Ile Arg Lys Arg

305

310

315

320

Glu Arg Glu Lys Leu His Ala Val Asn Ala Glu Glu Cys Asn Val Leu

325

330

335

Gln Gly Arg Trp Leu Ser Asp Glu Cys Thr Asn Ala Val Val Asn Phe

340

345

350

Leu Ser Arg Lys Ser Lys Leu

355

<210> 95

<211> 359

<212> PRT

<213> Homo sapiens

<400> 95

Met Arg Ala Ser Gln Lys Asp Phe Glu Asn Ser Met Asn Gln Val Lys

1 5 10 15

Leu Leu Lys Lys Asp Pro Gly Asn Glu Val Lys Leu Lys Leu Tyr Ala

20 25 30

Leu Tyr Lys Gln Ala Thr Glu Gly Pro Cys Asn Met Pro Lys Pro Gly

35 40 45

Val Phe Asp Leu Ile Asn Lys Ala Lys Trp Asp Ala Trp Asn Ala Leu

50 55 60

Gly Ser Leu Pro Lys Glu Ala Ala Arg Gln Asn Tyr Val Asp Leu Val

65 70 75 80

Ser Ser Leu Ser Pro Ser Leu Glu Ser Ser Ser Gln Val Glu Pro Gly

85 90 95

Thr Asp Arg Lys Ser Thr Gly Phe Glu Thr Leu Val Val Thr Ser Glu

100 105 110

Asp Gly Ile Thr Lys Ile Met Phe Asn Arg Pro Lys Lys Asn Ala

115 120 125

Ile Asn Thr Glu Met Tyr His Glu Ile Met Arg Ala Leu Lys Ala Ala

130 135 140

Ser Lys Asp Asp Ser Ile Ile Thr Val Leu Thr Gly Asn Gly Asp Tyr

145 150 155 160

Tyr Ser Ser Gly Asn Asp Leu Thr Asn Phe Thr Asp Ile Pro Pro Gly

165 170 175

Gly Val Glu Glu Lys Ala Lys Asn Asn Ala Val Leu Leu Arg Glu Phe

180 185 190

Val Gly Cys Phe Ile Asp Phe Pro Lys Pro Leu Ile Ala Val Val Asn

195 200 205

Gly Pro Ala Val Gly Ile Ser Val Thr Leu Leu Gly Leu Phe Asp Ala

210 215 220

Val Tyr Ala Ser Asp Arg Ala Thr Phe His Thr Pro Phe Ser His Leu

225 230 235 240

Gly Gln Ser Pro Glu Gly Cys Ser Ser Tyr Thr Phe Pro Lys Ile Met

245 250 255

Ser Pro Ala Lys Ala Thr Glu Met Leu Ile Phe Gly Lys Lys Leu Thr

260 265 270

Ala Gly Glu Ala Cys Ala Gln Gly Leu Val Thr Glu Val Phe Pro Asp

275 280 285

Ser Thr Phe Gln Lys Glu Val Trp Thr Arg Leu Lys Ala Phe Ala Lys
290 295 300

Leu Pro Pro Asn Ala Leu Arg Ile Ser Lys Glu Val Ile Arg Lys Arg
305 310 315 320

Glu Arg Glu Lys Leu His Ala Val Asn Ala Glu Glu Cys Asn Val Leu
325 330 335

Gln Gly Arg Trp Leu Ser Asp Glu Cys Thr Asn Ala Val Val Asn Phe
340 345 350

Leu Ser Arg Lys Ser Lys Leu
355

<210> 96

<211> 282

<212> PRT

<213> Homo sapiens

<400> 96

Met Ala Ser Ser Phe Leu Pro Ala Gly Ala Ile Thr Gly Asp Ser Gly
1 5 10 15

Gly Glu Leu Ser Ser Gly Asp Asp Ser Gly Glu Val Glu Phe Pro His
20 25 30

Ser Pro Glu Ile Glu Glu Thr Ser Cys Leu Ala Glu Leu Phe Glu Lys

35

40

45

Ala Ala Ala His Leu Gln Gly Leu Ile Gln Val Ala Ser Arg Glu Gln

50

55

60

Leu Leu Tyr Leu Tyr Ala Arg Tyr Lys Gln Val Lys Val Gly Asn Cys

65

70

75

80

Asn Thr Pro Lys Pro Ser Phe Phe Asp Phe Glu Gly Lys Gln Lys Trp

85

90

95

Glu Ala Trp Lys Ala Leu Gly Asp Ser Ser Pro Ser Gln Ala Met Gln

100

105

110

Glu Tyr Ile Ala Val Val Lys Lys Leu Asp Pro Gly Trp Asn Pro Gln

115

120

125

Ile Pro Glu Lys Lys Gly Lys Glu Ala Asn Thr Gly Phe Gly Pro

130

135

140

Val Ile Ser Ser Leu Tyr His Glu Glu Thr Ile Arg Glu Glu Asp Lys

145

150

155

160

Asn Ile Phe Asp Tyr Cys Arg Glu Asn Asn Ile Asp His Ile Thr Lys

165

170

175

Ala Ile Lys Ser Lys Asn Val Asp Val Asn Val Lys Asp Glu Glu Gly

180

185

190

Arg Ala Leu Leu His Trp Ala Cys Asp Arg Gly His Lys Glu Leu Val

195

200

205

Thr Val Leu Leu Gln His Arg Ala Asp Ile Asn Cys Gln Asp Asn Glu

210

215

220

Gly Gln Thr Ala Leu His Tyr Ala Ser Ala Cys Glu Phe Leu Asp Ile

225

230

235

240

Val Glu Leu Leu Leu Gln Ser Gly Ala Asp Pro Thr Leu Arg Asp Gln

245

250

255

Asp Gly Cys Leu Pro Glu Glu Val Thr Gly Cys Lys Thr Val Ser Leu

260

265

270

Val Leu Gln Arg His Thr Thr Gly Lys Ala

275

280

<210> 97

<211> 279

<212> PRT

<213> Homo sapiens

<400> 97

Met Ala Ser Ser Phe Leu Pro Ala Gly Ala Ile Thr Gly Asp Ser Gly

1 5 10 15

Gly Glu Leu Ser Ser Gly Asp Asp Ser Gly Glu Val Glu Phe Pro His

20 25 30

Ser Pro Glu Ile Glu Glu Thr Ser Cys Leu Ala Glu Leu Phe Glu Lys

35 40 45

Ala Ala Ala His Leu Gln Gly Leu Ile Gln Val Ala Ser Arg Glu Gln

50 55 60

Leu Leu Tyr Leu Tyr Ala Arg Tyr Lys Gln Val Lys Val Gly Asn Cys

65 70 75 80

Asn Thr Pro Lys Pro Ser Phe Phe Asp Phe Glu Gly Lys Gln Lys Trp

85 90 95

Glu Ala Trp Lys Ala Leu Gly Asp Ser Ser Pro Ser Gln Ala Met Gln

100 105 110

Glu Tyr Ile Ala Val Val Lys Lys Leu Asp Pro Gly Trp Asn Pro Gln

115 120 125

Ile Pro Glu Lys Lys Arg Lys Arg Ser Lys Tyr Lys Val Trp Ala Ser

130 135 140

Tyr Phe Ser Ile Ser Arg Asn His Gln Gly Arg Asp Lys Asn Ile Phe

145

150

155

160

Asp Tyr Cys Arg Glu Asn Asn Ile Asp His Ile Thr Lys Ala Ile Lys

165

170

175

Ser Lys Asn Val Asp Val Asn Val Lys Asp Glu Glu Gly Arg Ala Leu

180

185

190

Leu His Trp Ala Cys Asp Arg Gly His Lys Glu Leu Val Thr Val Leu

195

200

205

Leu Gln His Arg Ala Asp Ile Asn Cys Gln Asp Asn Glu Gly Gln Thr

210

215

220

Ala Leu His Tyr Ala Ser Ala Cys Glu Phe Leu Asp Ile Val Glu Leu

225

230

235

240

Leu Leu Gln Ser Gly Ala Asp Pro Thr Leu Arg Asp Gln Asp Gly Cys

245

250

255

Leu Pro Glu Glu Val Thr Gly Cys Lys Thr Val Ser Leu Val Leu Gln

260

265

270

Arg His Thr Thr Gly Lys Ala

275

<210> 98

<211> 89

<212> PRT

<213> Homo sapiens

<400> 98

Thr Ala Ser Thr Thr Pro Cys Ala Lys Trp Ser Ser Ser Cys Ala Ala

1

5

10

15

Leu Lys Gln Leu Lys Gly Pro Val Ser Asp Gln Glu Lys Leu Leu Val

20

25

30

Tyr Gly Leu Tyr Lys Gln Ala Thr Gln Gly Asp Cys Asp Ile Pro Gly

35

40

45

Pro Pro Ala Ser Asp Val Arg Ala Arg Ala Lys Trp Glu Ala Trp Ser

50

55

60

Ala Asn Lys Gly Ala Ser Lys Met Asp Ala Met Arg Gly Tyr Ala Ala

65

70

75

80

Lys Val Glu Glu Leu Thr Lys Lys Glu

85

<210> 99

<211> 104

<212> PRT

<213> Homo sapiens

<400> 99

Met Trp Gly Asp Leu Trp Leu Leu Pro Pro Ala Ser Ala Asn Pro Gly

1 5 10 15

Thr Gly Thr Glu Ala Glu Phe Glu Lys Ala Ala Glu Glu Val Arg His

20 25 30

Leu Lys Thr Lys Pro Ser Asp Glu Glu Met Leu Phe Ile Tyr Gly His

35 40 45

Tyr Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met

50 55 60

Leu Asp Phe Thr Gly Lys Ala Lys Trp Asp Ala Trp Asn Glu Leu Lys

65 70 75 80

Gly Thr Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asn Lys Val Glu

85 90 95

Glu Leu Lys Lys Tyr Gly Ile

100

<210> 100

<211> 86

<212> PRT

<213> Homo sapiens

<400> 100

Met Ser Gln Ala Phe Glu Lys Ala Ala Lys Asp Ile Lys His Leu Glu

1

5

10

15

Thr Lys Pro Ala Asp Asp Glu Arg Met Phe Ile Tyr Ser Arg Cys Lys

20

25

30

Gln Ala Thr Val His Asp Leu Asn Thr Glu Trp Pro Arg Met Leu Asp

35

40

45

Leu Lys Gly Lys Ala Lys Gln Asp Ala Trp Asn Glu Leu Lys Asp Thr

50

55

60

Ala Lys Glu Asp Ala Val Lys Ala Asp Ile Asn Lys Val Glu Glu Arg

65

70

75

80

Asn Lys Lys Tyr Arg Ile

85

<210> 101

<211> 138

<212> PRT

<213> Homo sapiens

<400> 101

Met Ala Lys Pro Ile Ser Thr Lys Asn Thr Lys Ile Ser Arg His Gly

1 5 10 15

Trp His Ala Ala Val Ile Thr Ala Ala Arg Glu Ala Glu Ala Asn
20 25 30

His Leu Ser Trp Glu Glu Lys Lys Lys Lys Arg Cys Ala Gly Ile
35 40 45

Lys His Phe Lys Thr Lys Pro Ala Asp Asp Glu Met Arg Phe Leu Tyr
50 55 60

Gly His Tyr Lys Arg Ala Thr Val Gly Asn Ile Lys Thr Glu Arg Pro
65 70 75 80

Gly Met Val Asp Phe Lys Gly Lys Ala Lys Trp Asp Pro Trp Asn Leu
85 90 95

Val Lys Gly Ala Ala Arg Glu Asp Pro Met Lys Ala Lys Ala Tyr Val
100 105 110

Lys Lys Val Glu Glu Leu Lys Lys Phe Arg Ile Arg Glu Thr Gly
115 120 125

Ile Val Ala Ser His Ala Phe Val Leu Asn
130 135

<210> 102

<211> 96

<212> PRT

<213> Homo sapiens

<400> 102

Met Leu Leu Leu Phe Val Cys Leu Phe Phe Leu Lys Ala Asp Phe Asp

1

5

10

15

Arg Ala Ala Glu Asp Val Arg Lys Leu Lys Ala Arg Pro Asp Asp Gly

20

25

30

Glu Leu Lys Glu Leu Tyr Gly Leu Tyr Lys Gln Ala Ile Val Gly Asp

35

40

45

Ile Asn Ile Ala Cys Pro Gly Met Leu Asp Leu Lys Gly Lys Ala Lys

50

55

60

Trp Glu Ala Trp Asn Leu Lys Lys Gly Leu Ser Thr Glu Asp Ala Thr

65

70

75

80

Ser Ala Tyr Ile Ser Lys Ala Lys Glu Leu Ile Glu Lys Tyr Gly Ile

85

90

95

<210> 103

<211> 88

<212> PRT

<213> Homo sapiens

<400> 103

Met Ser Leu Gln Ala Asp Phe Asp Met Val Thr Glu Asp Val Arg Lys

1

5

10

15

Leu Lys Thr Arg Pro Asp Asp Glu Glu Leu Lys Glu Leu Tyr Gly Leu

20

25

30

Tyr Lys Gln Ala Val Ile Gly Asn Ile Asn Ile Glu Cys Ser Glu Met

35

40

45

Leu Glu Leu Lys Gly Lys Ala Lys Trp Glu Ala Gln Asn Pro Gln Lys

50

55

60

Gly Leu Ser Glu Glu Asp Met Met Arg Ala Phe Ile Ser Lys Ala Glu

65

70

75

80

Glu Leu Ile Glu Lys Tyr Gly Ile

85

<210> 104

<211> 86

<212> PRT

<213> Homo sapiens

<400> 104

Met Ala Leu Gln Ala Glu Phe Asp Lys Ala Ala Glu Asp Val Arg Lys

1 5 10 15

Leu Pro Thr Arg Pro Ala Asp Asn Lys Glu Leu Lys Lys Leu Asp Gly

20 25 30

Leu Tyr Lys Gln Ala Ile Ile Gly Asp Ile Asn Ile Glu Tyr Leu Gly

35 40 45

Met Leu Asp Phe Lys Gly Lys Ala Lys Cys Ala Ala Trp Thr Leu Gln

50 55 60

Lys Arg Leu Ser Lys Glu Asp Ala Thr Ser Val Ser Ile Ser Lys Ala

65 70 75 80

Lys Glu Pro Ile Glu Lys

85

<210> 105

<211> 282

<212> PRT

<213> Homo sapiens

<400> 105

Met Ala Ser Ser Phe Leu Pro Ala Gly Ala Ile Thr Gly Asp Ser Gly

1

5

10

15

Gly Glu Leu Ser Ser Gly Asp Asp Ser Gly Glu Val Glu Phe Pro His

20

25

30

Ser Pro Glu Ile Glu Glu Thr Ser Cys Leu Ala Glu Leu Phe Glu Lys

35

40

45

Ala Ala Ala His Leu Gln Gly Leu Ile Gln Val Ala Ser Arg Glu Gln

50

55

60

Leu Leu Tyr Leu Tyr Ala Arg Tyr Lys Gln Val Lys Val Gly Asn Cys

65

70

75

80

Asn Thr Pro Lys Pro Ser Phe Phe Asp Phe Glu Gly Lys Gln Lys Trp

85

90

95

Glu Ala Trp Lys Ala Leu Gly Asp Ser Ser Pro Ser Gln Ala Met Gln

100

105

110

Glu Tyr Ile Ala Val Val Lys Lys Leu Asp Pro Gly Trp Asn Pro Gln

115

120

125

Ile Pro Glu Lys Lys Gly Lys Glu Ala Asn Thr Gly Phe Gly Gly Pro

130

135

140

Val Ile Ser Ser Leu Tyr His Glu Glu Thr Ile Arg Glu Glu Asp Lys

145

150

155

160

Asn Ile Phe Asp Tyr Cys Arg Glu Asn Asn Ile Asp His Ile Thr Lys

165

170

175

Ala Ile Lys Ser Lys Asn Val Asp Val Asn Val Lys Asp Glu Glu Gly

180

185

190

Arg Ala Leu Leu His Trp Ala Cys Asp Arg Gly His Lys Glu Leu Val

195

200

205

Thr Val Leu Leu Gln His Arg Ala Asp Ile Asn Cys Gln Asp Asn Glu

210

215

220

Gly Gln Thr Ala Leu His Tyr Ala Ser Ala Cys Glu Phe Leu Asp Ile

225

230

235

240

Val Glu Leu Leu Leu Gln Ser Gly Ala Asp Pro Thr Leu Arg Asp Gln

245

250

255

Asp Gly Cys Leu Pro Glu Glu Val Thr Gly Cys Lys Thr Val Ser Leu

260

265

270

Val Leu Gln Arg His Thr Thr Gly Lys Ala

275

280

<210> 106

<211> 359

<212> PRT

<213> Homo sapiens

<400> 106

Met Arg Ala Ser Gln Lys Asp Phe Glu Asn Ser Met Asn Gln Val Lys

1 5 10 15

Leu Leu Lys Lys Asp Pro Gly Asn Glu Val Lys Leu Lys Leu Tyr Ala

20 25 30

Leu Tyr Lys Gln Ala Thr Glu Gly Pro Cys Asn Met Pro Lys Pro Gly

35 40 45

Val Phe Asp Leu Ile Asn Lys Ala Lys Trp Asp Ala Trp Asn Ala Leu

50 55 60

Gly Ser Leu Pro Lys Glu Ala Ala Arg Gln Asn Tyr Val Asp Leu Val

65 70 75 80

Ser Ser Leu Ser Pro Ser Leu Glu Ser Ser Ser Gln Val Glu Pro Gly

85 90 95

Thr Asp Arg Lys Ser Thr Gly Phe Glu Thr Leu Val Val Thr Ser Glu

100 105 110

Asp Gly Ile Thr Lys Ile Met Phe Asn Arg Pro Lys Lys Asn Ala

115 120 125

Ile Asn Thr Glu Met Tyr His Glu Ile Met Arg Ala Leu Lys Ala Ala

130

135

140

Ser Lys Asp Asp Ser Ile Ile Thr Val Leu Thr Gly Asn Gly Asp Tyr

145

150

155

160

Tyr Ser Ser Gly Asn Asp Leu Thr Asn Phe Thr Asp Ile Pro Pro Gly

165

170

175

Gly Val Glu Glu Lys Ala Lys Asn Asn Ala Val Leu Leu Arg Glu Phe

180

185

190

Val Gly Cys Phe Ile Asp Phe Pro Lys Pro Leu Ile Ala Val Val Asn

195

200

205

Gly Pro Ala Val Gly Ile Ser Val Thr Leu Leu Gly Leu Phe Asp Ala

210

215

220

Val Tyr Ala Ser Asp Arg Ala Thr Phe His Thr Pro Phe Ser His Leu

225

230

235

240

Gly Gln Ser Pro Glu Gly Cys Ser Ser Tyr Thr Phe Pro Lys Ile Met

245

250

255

Ser Pro Ala Lys Ala Thr Glu Met Leu Ile Phe Gly Lys Lys Leu Thr

260

265

270

Ala Gly Glu Ala Cys Ala Gln Gly Leu Val Thr Glu Val Phe Pro Asp

275

280

285

Ser Thr Phe Gln Lys Glu Val Trp Thr Arg Leu Lys Ala Phe Ala Lys

290

295

300

Leu Pro Pro Asn Ala Leu Arg Ile Ser Lys Glu Val Ile Arg Lys Arg

305

310

315

320

Glu Arg Glu Lys Leu His Ala Val Asn Ala Glu Glu Cys Asn Val Leu

325

330

335

Gln Gly Arg Trp Leu Ser Asp Glu Cys Thr Asn Ala Val Val Asn Phe

340

345

350

Leu Ser Arg Lys Ser Lys Leu

355

<210> 107

<211> 530

<212> PRT

<213> Homo sapiens

<400> 107

Met Phe Gln Phe His Ala Gly Ser Trp Glu Ser Trp Cys Cys Cys Cys

1

5

10

15

Leu Ile Pro Ala Asp Arg Pro Trp Asp Arg Gly Gln His Trp Gln Leu

20

25

30

Glu Met Ala Asp Thr Arg Ser Val His Glu Thr Arg Phe Glu Ala Ala

35

40

45

Val Lys Val Ile Gln Ser Leu Pro Lys Asn Gly Ser Phe Gln Pro Thr

50

55

60

Asn Glu Met Met Leu Lys Phe Tyr Ser Phe Tyr Lys Gln Ala Thr Glu

65

70

75

80

Gly Pro Cys Lys Leu Ser Arg Pro Gly Phe Trp Asp Pro Ile Gly Arg

85

90

95

Tyr Lys Trp Asp Ala Trp Ser Ser Leu Gly Asp Met Thr Lys Glu Glu

100

105

110

Ala Met Ile Ala Tyr Val Glu Glu Met Lys Lys Ile Ile Glu Thr Met

115

120

125

Pro Met Thr Glu Lys Val Glu Glu Leu Leu Arg Val Ile Gly Pro Phe

130

135

140

Tyr Glu Ile Val Glu Asp Lys Lys Ser Gly Arg Ser Ser Asp Ile Thr

145

150

155

160

Ser Val Arg Leu Glu Lys Ile Ser Lys Cys Leu Glu Asp Leu Gly Asn

165

170

175

Val Leu Thr Ser Thr Pro Asn Ala Lys Thr Val Asn Gly Lys Ala Glu
180 185 190

Ser Ser Asp Ser Gly Ala Glu Ser Glu Glu Glu Ala Gln Glu Glu
195 200 205

Val Lys Gly Ala Glu His Ser Asp Asn Asp Lys Lys Met Met Lys Lys
210 215 220

Ser Ala Asp His Lys Asn Leu Glu Val Ile Val Thr Asn Gly Tyr Asp
225 230 235 240

Lys Asp Gly Phe Val Gln Asp Ile Gln Asn Asp Ile His Ala Ser Ser
245 250 255

Ser Leu Asn Gly Arg Ser Thr Glu Glu Val Lys Pro Ile Asp Glu Asn
260 265 270

Leu Gly Gln Thr Gly Lys Ser Ala Val Cys Ile His Gln Gly Ile Asn
275 280 285

Asp Asp His Val Glu Asp Val Thr Gly Ile Gln His Leu Thr Ser Asp
290 295 300

Ser Asp Ser Glu Val Tyr Cys Asp Ser Met Glu Gln Phe Gly Gln Glu
305 310 315 320

Glu Ser Leu Asp Ser Phe Thr Ser Asn Asn Gly Pro Phe Gln Tyr Tyr

325

330

335

Leu Gly Gly His Ser Ser Gln Pro Met Glu Asn Ser Gly Phe Arg Glu

340

345

350

Asp Ile Gln Val Pro Pro Gly Asn Gly Asn Ile Gly Asn Met Gln Val

355

360

365

Val Ala Val Glu Gly Lys Gly Glu Val Lys His Gly Gly Glu Asp Gly

370

375

380

Arg Asn Asn Ser Gly Ala Pro His Arg Glu Lys Arg Gly Gly Glu Thr

385

390

395

400

Asp Glu Phe Ser Asn Val Arg Arg Gly Arg Gly His Arg Met Gln His

405

410

415

Leu Ser Glu Gly Thr Lys Gly Arg Gln Val Gly Ser Gly Gly Asp Gly

420

425

430

Glu Arg Trp Gly Ser Asp Arg Gly Ser Arg Gly Ser Leu Asn Glu Gln

435

440

445

Ile Ala Leu Val Leu Met Arg Leu Gln Glu Asp Met Gln Asn Val Leu

450

455

460

Gln Arg Leu Gln Lys Leu Glu Thr Leu Thr Ala Ala Lys Ser Ser Thr

465

470

475

480

Ser Thr Leu Gln Thr Ala Pro Gln Pro Thr Ser Ser Gln Arg Pro Ser

485

490

495

Trp Trp Pro Phe Glu Met Ser Pro Gly Val Leu Thr Phe Ala Ile Ile

500

505

510

Trp Pro Phe Ile Ala Gln Trp Leu Val Tyr Leu Tyr Tyr Gln Arg Arg

515

520

525

Arg Arg

530

<210> 108

<211> 20

<212> PRT

<213> Homo sapiens

<400> 108

Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met Leu Asp

1

5

10

15

Phe Thr Gly Lys

20

<210> 109

<211> 20

<212> PRT

<213> Homo sapiens

<400> 109

Arg Ala Thr Val Gly Asn Ile Lys Thr Glu Arg Pro Gly Met Val Asp

1

5

10

15

Phe Lys Gly Lys

20

<210> 110

<211> 20

<212> PRT

<213> Homo sapiens

<400> 110

Gln Ala Val Ile Gly Asn Ile Asn Ile Glu Cys Ser Glu Met Leu Glu

1

5

10

15

Leu Lys Gly Lys

20

<210> 111

<211> 20

<212> PRT

<213> Homo sapiens

<400> 111

Gln Ala Ile Ile Gly Asp Ile Asn Ile Glu Tyr Leu Gly Met Leu Asp

1

5

10

15

Phe Lys Gly Lys

20

<210> 112

<211> 20

<212> PRT

<213> Homo sapiens

<400> 112

Gln Ala Ile Val Gly Asp Ile Asn Ile Ala Cys Pro Gly Met Leu Asp

1

5

10

15

Leu Lys Gly Lys

20

<210> 113

<211> 20

<212> PRT

<213> Homo sapiens

<400> 113

Gln Ala Thr Val His Asp Leu Asn Thr Glu Trp Pro Arg Met Leu Asp

1

5

10

15

Leu Lys Gly Lys

20

<210> 114

<211> 20

<212> PRT

<213> Homo sapiens

<400> 114

Gln Val Lys Val Gly Asn Cys Asn Thr Pro Lys Pro Ser Phe Phe Asp

1

5

10

15

Phe Glu Gly Lys

20

<210> 115

<211> 20

<212> PRT

<213> Homo sapiens

<400> 115

Gln Ala Thr Glu Gly Pro Cys Asn Met Pro Lys Pro Gly Val Phe Asp

1

5

10

15

Leu Ile Asn Lys

20

<210> 116

<211> 20

<212> PRT

<213> Homo sapiens

<400> 116

Gln Ala Thr Glu Gly Pro Cys Lys Leu Ser Arg Pro Gly Phe Trp Asp

1

5

10

15

Pro Ile Gly Arg

20

<210> 117

<211> 20

<212> PRT

<213> Homo sapiens

<400> 117

Gln Ala Thr Gln Gly Asp Cys Asp Ile Pro Gly Pro Pro Ala Ser Asp

1

5

10

15

Val Arg Ala Arg

20

<210> 118

<211> 18

<212> PRT

<213> Homo sapiens

<400> 118

Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met Leu Asp

1

5

10

15

Phe Thr

<210> 119

<211> 18

<212> PRT

<213> Homo sapiens

<400> 119

Gln Ala Thr Val Gly Asp Val Asn Thr Asp Arg Pro Gly Leu Leu Asp

1

5

10

15

Leu Lys

<210> 120

<211> 18

<212> PRT

<213> Homo sapiens

<400> 120

Arg Ala Thr Val Gly Asn Ile Lys Thr Glu Arg Pro Gly Met Val Asp

1

5

10

15

Phe Lys

<210> 121

<211> 32

<212> PRT

<213> Bos taurus

<400> 121

Ile Tyr Ser His Tyr Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu

1

5

10

15

Arg Pro Gly Met Leu Asp Phe Lys Gly Lys Ala Lys Trp Asp Ala Trp

20

25

30

<210> 122

<211> 32

<212> PRT

<213> Homo sapiens

<400> 122

Ile Tyr Gly His Tyr Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu

1

5

10

15

Arg Pro Gly Met Leu Asp Phe Thr Gly Lys Ala Lys Trp Asp Ala Trp

20

25

30

<210> 123

<211> 32

<212> PRT

<213> Drosophila melanogaster

<400> 123

Leu Tyr Ser Leu Tyr Lys Gln Ala Thr Val Gly Asp Cys Asn Thr Asp

1

5

10

15

Lys Pro Gly Phe Leu Asp Phe Lys Gly Lys Ala Lys Trp Glu Ala Trp

20

25

30

<210> 124

<211> 32

<212> PRT

<213> Gallus gallus

<400> 124

Val Tyr Ser His Tyr Lys Gln Ala Thr Val Gly Asp Val Asn Thr Asp

1

5

10

15

Arg Pro Gly Met Leu Asp Phe Lys Gly Lys Ala Lys Trp Asp Ala Trp

20

25

30

<210> 125

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
construct; chemically synthesized

<400> 125

Ile Tyr Ser His Tyr Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu
1 5 10 15

Arg Pro Gly Met Leu Asp Phe Lys Gly Lys Ala Lys Trp Asp Ala Trp

20 25 30

<210> 126

<211> 32

<212> PRT

<213> Homo sapiens

<400> 126

Ile Tyr Gly His Tyr Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu
1 5 10 15

Arg Pro Gly Met Leu Asp Phe Thr Gly Lys Ala Lys Trp Asp Ala Trp

20 25 30

<210> 127

<211> 32

<212> PRT

<213> turtle

<400> 127

Ile Tyr Ser His Phe Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu

1

5

10

15

Arg Pro Gly Phe Leu Asp Phe Lys Gly Lys Ala Lys Trp Asp Ala Trp

20

25

30

<210> 128

<211> 32

<212> PRT

<213> mallard

<400> 128

Val Tyr Ser His Tyr Lys Gln Ala Thr Val Gly Asp Val Asn Thr Asp

1

5

10

15

Arg Pro Gly Met Leu Asp Phe Lys Gly Lys Ala Lys Trp Asp Ala Trp
20 25 30

<210> 129
<211> 32
<212> PRT
<213> Mus musculus

<400> 129
Ile Tyr Ser His Phe Lys Gln Ala Thr Val Gly Asp Val Asn Thr Asp
1 5 10 15

Arg Pro Gly Leu Leu Asp Leu Lys Gly Lys Ala Lys Trp Asp Ser Trp
20 25 30

<210> 130
<211> 32
<212> PRT
<213> Sus scrofa

<400> 130

Ile Tyr Ser His Tyr Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu

1

5

10

15

Arg Pro Gly Ile Leu Asp Leu Lys Gly Lys Ala Lys Trp Asp Ala Trp

20

25

30

<210> 131

<211> 32

<212> PRT

<213> Bos taurus

<400> 131

Ile Tyr Ser His Tyr Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu

1

5

10

15

Arg Pro Gly Met Leu Asp Phe Lys Gly Lys Ala Lys Trp Asp Ala Trp

20

25

30

<210> 132

<211> 32

<212> PRT

<213> Homo sapiens

<400> 132

Ile Tyr Gly His Tyr Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu

1

5

10

15

Arg Pro Gly Met Leu Asp Phe Thr Gly Lys Ala Lys Trp Asp Ala Trp

20

25

30

<210> 133

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic

construct; chemically synthesized

<400> 133

Ile Tyr Ser His Tyr Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu

1

5

10

15

Arg Pro Gly Met Leu Asp Phe Lys Gly Lys Ala Lys Trp Asp Ala Trp
20 25 30

<210> 134

<211> 32

<212> PRT

<213> Homo sapiens

<400> 134

Ile Tyr Gly His Tyr Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu

1 5 10 15

Arg Pro Gly Met Leu Asp Phe Thr Gly Lys Ala Lys Trp Asp Ala Trp

20 25 30

<210> 135

<211> 32

<212> PRT

<213> Anas platyrhynchos

<400> 135

Leu Tyr Gly Phe Tyr Lys Gln Ala Thr Val Gly Asp Ile Asn Ile Glu
1 5 10 15

Cys Pro Gly Met Leu Asp Leu Lys Gly Lys Ala Lys Trp Glu Ala Trp
20 25 30

<210> 136

<211> 32

<212> PRT

<213> turtle

<400> 136

Ile Tyr Ser His Phe Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu
1 5 10 15

Arg Pro Gly Phe Leu Asp Phe Lys Gly Lys Ala Lys Trp Asp Ala Trp
20 25 30

<210> 137

<211> 20

<212> PRT

<213> Homo sapiens

<400> 137

Gln Ser Thr Val Gly Asp Ile Asn Ile Glu Cys Pro Gly Met Leu Asp

1

5

10

15

Leu Lys Gly Lys

20

<210> 138

<211> 20

<212> PRT

<213> Homo sapiens

<400> 138

Gln Ala Ser Val Gly Asp Asn Asp Thr Ala Lys Pro Gly Leu Leu Asp

1

5

10

15

Leu Lys Gly Lys

20

<210> 139

<211> 20

<212> PRT

<213> Homo sapiens

<400> 139

Gln Ala Ser Val Gly Asp Asn Asp Thr Ala Lys Pro Gly Leu Leu Asp

1

5

10

15

Leu Lys Gly Lys

20

<210> 140

<211> 20

<212> PRT

<213> Homo sapiens

<400> 140

Gln Ala Thr Val Gly Asp Asn Asn Thr Glu Lys Pro Gly Leu Leu Asp

1

5

10

15

Leu Lys Gly Lys

20

<210> 141

<211> 20

<212> PRT

<213> Bos taurus

<400> 141

Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met Leu Asp

1

5

10

15

Phe Lys Gly Lys

20

<210> 142

<211> 20

<212> PRT

<213> Mus musculus

<400> 142

Gln Ala Thr Val Gly Asp Val Asn Thr Asp Arg Pro Gly Leu Leu Asp

1

5

10

15

Leu Lys Gly Lys

20

<210> 143

<211> 20

<212> PRT

<213> Rattus norvegicus

<400> 143

Gln Ala Thr Val Gly Asp Val Asn Thr Asp Arg Pro Gly Leu Leu Asp

1

5

10

15

Leu Lys Gly Lys

20

<210> 144

<211> 20

<212> PRT

<213> Sus scrofa

<400> 144

Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Ile Leu Asp

1

5

10

15

Leu Lys Gly Lys

20

<210> 145

<211> 20

<212> PRT

<213> Bos taurus

<400> 145

Gln Ala Thr Glu Gly Pro Cys Lys Leu Ser Lys Pro Gly Phe Trp Asp

1

5

10

15

Pro Val Gly Arg

20

<210> 146

<211> 20

<212> PRT

<213> Cyprinus carpio

<400> 146

Gln Ala Thr Gln Gly Pro Cys Asn Thr Pro Lys Pro Ser Met Leu Asp

1

5

10

15

Phe Val Asn Lys

20

<210> 147

<211> 20

<212> PRT

<213> Mus musculus

<400> 147

Gln Ala Thr Glu Gly Thr Cys Asn Met Pro Lys Pro Gly Met Leu Asp

1

5

10

15

Phe Val Asn Lys

<210> 148

<211> 20

<212> PRT

<213> Homo sapiens

<220>

<221> VARIANT

<222> (2)

<223> wherein Xaa is any amino acid

<220>

<221> VARIANT

<222> (3)

<223> wherein Xaa is any amino acid

<220>

<221> VARIANT

<222> (6)

<223> wherein Xaa is any amino acid

<220>

<221> VARIANT

<222> (7)

<223> wherein Xaa is any amino acid

<220>
<221> VARIANT
<222> (10)
<223> wherein Xaa is any amino acid

<220>
<221> VARIANT
<222> (11)
<223> wherein Xaa is Arg or Lys

<220>
<221> VARIANT
<222> (13)
<223> wherein Xaa is any amino acid

<220>
<221> VARIANT
<222> (14)
<223> wherein Xaa is any amino acid

<220>
<221> VARIANT
<222> (15)
<223> wherein Xaa is any amino acid

<220>
<221> VARIANT
<222> (18)

<223> wherein Xaa is any amino acid

<400> 148

Gln Xaa Xaa Val Gly Xaa Xaa Asn Thr Xaa Xaa Pro Xaa Xaa Xaa Asp

1

5

10

15

Phe Xaa Gly Lys

20

<210> 149

<211> 89

<212> PRT

<213> Homo sapiens

<400> 149

Thr Ala Ser Thr Thr Pro Cys Ala Lys Trp Ser Ser Ser Cys Ala Ala

1

5

10

15

Leu Lys Gln Leu Lys Gly Pro Val Ser Asp Gln Glu Lys Leu Leu Val

20

25

30

Tyr Gly Leu Tyr Lys Gln Ala Thr Gln Gly Asp Cys Asp Ile Pro Gly

35

40

45

Pro Pro Ala Ser Asp Val Arg Ala Arg Ala Lys Trp Glu Ala Trp Ser

50

55

60

Ala Asn Lys Gly Ala Ser Lys Met Asp Ala Met Arg Gly Tyr Ala Ala

65

70

75

80

Lys Val Glu Glu Leu Thr Lys Lys Glu

85

<210> 150

<211> 228

<212> PRT

<213> Homo sapiens

<400> 150

Met Gly Asp Ala Gly Ala Thr Ala Ala Ala Leu Arg Pro Ala His Asn

1

5

10

15

Leu Arg Pro Ala Pro Pro Thr Ala Ser Ala Ala His Ala Gln Ser Ser

20

25

30

Arg Thr Ser Ala Pro Ser Ala Gln Arg Arg Leu Pro Ala Glu Pro Ser

35

40

45

His Gln Pro Ser Ala Pro Gly Thr Ala Ser Thr Thr Pro Cys Ala Lys

50

55

60

Trp Ser Ser Ser Cys Ala Ala Leu Lys Gln Leu Lys Gly Pro Val Ser

65

70

75

80

Asp Gln Glu Lys Leu Leu Val Tyr Gly Leu Tyr Lys Gln Ala Thr Gln

85 90 95

Gly Asp Cys Asp Ile Pro Gly Pro Pro Ala Ser Asp Val Arg Ala Arg

100 105 110

Ala Lys Trp Glu Ala Trp Ser Ala Asn Lys Gly Ala Ser Lys Met Asp

115 120 125

Ala Met Arg Gly Tyr Ala Ala Lys Val Glu Glu Leu Thr Lys Lys Glu

130 135 140

Val Gly Gly Val Glu Arg Glu Gln Arg Gly Val Gln Asp Gly Arg His

145 150 155 160

Glu Gly Leu Arg Gly Gln Ser Gly Gly Ala Asp Glu Glu Gly Arg Ala

165 170 175

Ser Lys Met Asp Ala Met Arg Gly Tyr Ala Ala Lys Val Glu Glu Leu

180 185 190

Thr Lys Lys Glu Val Gly Gly Val Glu Arg Glu Gln Arg Gly Val Gln

195 200 205

Asp Gly Arg His Glu Gly Leu Arg Gly Gln Ser Glu Glu Met Arg Lys

210 215 220

Lys Glu Ala Gly

<210> 151

<211> 191

<212> PRT

<213> Homo sapiens

<400> 151

Met Gly Asp Ala Gly Ala Thr Ala Ala Ala Leu Arg Pro Ala His Asn

1

5

10

15

Leu Arg Pro Ala Pro Pro Thr Ala Ser Ala Ala His Ala Ser Pro His

20

25

30

Glu Arg Ala Arg Gln Ala Ser Arg Ala Phe Arg Gln Ser Pro Pro Thr

35

40

45

Ser Pro Gln Leu Leu Ala Pro Gly Thr Ala Ser Thr Thr Pro Cys Ala

50

55

60

Lys Trp Ser Ser Ser Cys Ala Ala Leu Lys Gln Leu Lys Gly Pro Val

65

70

75

80

Ser Asp Gln Glu Lys Leu Leu Val Tyr Gly Leu Tyr Lys Gln Ala Thr

85

90

95

Gln Gly Asp Cys Asp Ile Pro Gly Pro Pro Ala Ser Asp Val Arg Ala

100 105 110

Arg Ala Lys Trp Glu Ala Trp Ser Ala Lys Lys Gly Ala Ser Lys Met

115 120 125

Asp Ala Met Arg Gly Tyr Ala Ala Lys Val Glu Glu Leu Thr Lys Lys

130 135 140

Glu Val Gly Gly Val Glu Arg Glu Gln Arg Gly Val Gln Asp Gly Arg

145 150 155 160

His Glu Gly Leu Arg Gly Gln Ser Gly Gly Ala Asp Glu Glu Gly Ser

165 170 175

Gly Gly Arg Gly Ala Arg Thr Lys Gly Arg Pro Arg Trp Thr Pro

180 185 190

<210> 152

<211> 687

<212> DNA

<213> Homo sapiens

<400> 152

atgggagacg caggagccac ggcggccgcg cttaggcctg ctcacaacct ccgccccggcc 60
ccgccccacag cctccggccgc gcacgcgcag tcctcacgaa cgagcgcgc aagcgcacag 120
cgccgccttc cggcagagcc ctcccaccag ccctcagcac cagggaccgc ctccaccacc 180
ccatgtgccca agtggagttc gagctgcgcg gccctcaagc agctgaaggg tccccgtgagc 240
gatcaggaga agctgctggt ctacggcttg tacaaacagg ccacccaggg cgactgcgcac 300
atccccggcc ctccggccctc agacgtgaga gccagggcca agtgggaggc ttggagcgcg 360

aacaaagggg cgtccaagat ggacgccatg aggggctacg cggccaaagt ggaggagctg 420
acgaagaagg aagtgggggg cgtggagcgc gaacaaagg gcgtgcaaga tggacgccc 480
gaggggctac gcggccaaag tggaggagct gacgaagaag gaagggcgac caagatggac 540
gccatgaggg gctacgcggc caaagtggag gagctgacga agaaggaagt gggggcggtg 600
gagcgcgaac aaaggggcgt ccaagatgga cgccatgagg ggctacgcgg ccagagttag 660
gagatgagga agaaggaggc tggctga

687

<210> 153

<211> 99

<212> PRT

<213> Homo sapiens

<400> 153

Met Cys Gln Val Glu Phe Glu Leu Arg Gly Pro Gln Ala Ala Glu Gly
1 5 10 15

Ser Arg Glu Arg Ser Gly Glu Ala Ala Gly Leu Arg Leu Val Gln Thr
20 25 30

Gly His Pro Gly Arg Leu Arg His Pro Arg Pro Ser Gly Leu Arg Arg
35 40 45

Glu Ser Gln Gly Gln Val Gly Gly Leu Glu Arg Glu Gln Arg Gly Val
50 55 60

Gln Asp Gly Arg His Glu Gly Leu Arg Gly Gln Ser Gly Gly Ala Asp
65 70 75 80

Glu Glu Gly Ser Gly Gly Arg Gly Ala Arg Thr Lys Gly Arg Ala Arg
85 90 95

Trp Thr Pro

<210> 154

<211> 99

<212> PRT

<213> Homo sapiens

<220>

<221> VARIANT

<222> (61)

<223> wherein Xaa is any amino acid

<400> 154

Met Cys Gln Val Glu Phe Glu Leu Arg Gly Pro Gln Ala Ala Glu Gly
1 5 10 15

Ser Arg Glu Arg Ser Gly Glu Ala Ala Gly Leu Arg Leu Val Gln Thr
20 25 30

Gly His Pro Gly Arg Leu Arg His Pro Arg Pro Ser Gly Leu Arg Arg
35 40 45

Glu Ser Gln Gly Gln Val Gly Gly Leu Glu Arg Glu Xaa Arg Gly Val
50 55 60

Gln Asp Gly Arg His Glu Gly Leu Arg Gly Gln Ser Gly Gly Ala Asp
65 70 75 80

Glu Glu Gly Ser Gly Gly Arg Gly Ala Arg Thr Lys Gly Arg Ala Arg
85 90 95

Trp Thr Pro

<210> 155

<211> 66

<212> PRT

<213> Homo sapiens

<220>

<221> VARIANT

<222> (25)

<223> wherein Xaa is any amino acid

<400> 155

Met Cys Gln Val Glu Phe Glu Leu Ala His Thr Ala Leu Lys Gln Leu
1 5 10 15

Lys Gly Thr Val Cys Asp Gln Glu Xaa Thr Ala Gly Val Gln Leu Leu
20 25 30

Gln Thr Ala His Pro Glu Arg Leu Gln His Pro Cys Pro Phe Ser Leu
35 40 45

Arg Cys Glu Ser Gln Gly Gln Val Gly Gly Met Glu Cys Glu Gln Arg
50 55 60

Asp Val
65

<210> 156

<211> 687

<212> DNA

<213> Homo sapiens

<400> 156

atgggagacg caggagccac ggccggccgcg cttaggcctg ctcacaacct ccgcggcc 60
ccgcccacag cctccggcgc gcacgcgcag tcctcacgaa cgagcgcc aagcgacag 120
cgccgccttc cggcagagcc ctccccaccag ccctcagcac cagggaccgc ctccaccacc 180
ccatgtgcca agtggagttc gagctgcgcg gccctcaagc agctgaaggg tccctgtgac 240
gatcaggaga agctgcttgt ctacggcttg tacaaacagg ccacccaggg cgactgcgac 300
atccccggcc ctccggcctc agacgtgaga gccagggcca agtggggagc ttggagcg 360
aacaaagggg cgtccaagat ggacgccatg aggggctacg cggccaaagt ggaggagctg 420
acgaagaagg aagtgggggg cgtggagcgc gaacaaagggg gcgtgcaaga tggacgccat 480
gaggggctac gcggccaaag tggaggagct gacgaagaag gaagggcgtc caagatggac 540
gccatgaggg gctacgcggc caaagtggag gagctgacga agaaggaagt ggggggctg 600
gagcgcgaac aaaggggcgt ccaagatgga cgccatgagg ggctacgcgg ccagagttag 660
gagatgagga agaaggaggc tggctga 687

<210> 157

<211> 228

<212> PRT

<213> Homo sapiens

<400> 157

Met Gly Asp Ala Gly Ala Thr Ala Ala Ala Leu Arg Pro Ala His Asn

1	5	10	15
Leu Arg Pro Ala Pro Pro Thr Ala Ser Ala Ala His Ala Gln Ser Ser			
20	25	30	
Arg Thr Ser Ala Pro Ser Ala Gln Arg Arg Leu Pro Ala Glu Pro Ser			
35	40	45	
His Gln Pro Ser Ala Pro Gly Thr Ala Ser Thr Thr Pro Cys Ala Lys			
50	55	60	
Trp Ser Ser Ser Cys Ala Ala Leu Lys Gln Leu Lys Gly Pro Val Ser			
65	70	75	80
Asp Gln Glu Lys Leu Leu Val Tyr Gly Leu Tyr Lys Gln Ala Thr Gln			
85	90	95	
Gly Asp Cys Asp Ile Pro Gly Pro Pro Ala Ser Asp Val Arg Ala Arg			
100	105	110	
Ala Lys Trp Glu Ala Trp Ser Ala Asn Lys Gly Ala Ser Lys Met Asp			
115	120	125	
Ala Met Arg Gly Tyr Ala Ala Lys Val Glu Glu Leu Thr Lys Lys Glu			
130	135	140	
Val Gly Gly Val Glu Arg Glu Gln Arg Gly Val Gln Asp Gly Arg His			
145	150	155	160
Glu Gly Leu Arg Gly Gln Ser Gly Gly Ala Asp Glu Glu Gly Arg Ala			
165	170	175	
Ser Lys Met Asp Ala Met Arg Gly Tyr Ala Ala Lys Val Glu Glu Leu			
180	185	190	
Thr Lys Lys Glu Val Gly Gly Val Glu Arg Glu Gln Arg Gly Val Gln			
195	200	205	
Asp Gly Arg His Glu Gly Leu Arg Gly Gln Ser Glu Glu Met Arg Lys			
210	215	220	
Lys Glu Ala Gly			
225			
<210> 158			
<211> 87			
<212> PRT			
<213> Bos taurus			
<400> 158			
Met Cys Gln Val Glu Phe Glu Met Ala Cys Ala Ala Ile Lys Gln Leu			

1	5	10	15												
Lys	Gly	Pro	Val	Ser	Asp	Gln	Glu	Lys	Leu	Leu	Val	Tyr	Ser	Tyr	Tyr
			20				25					30			
Lys	Gln	Ala	Thr	Gln	Gly	Asp	Cys	Asn	Ile	Pro	Ala	Pro	Pro	Ala	Thr
		35				40						45			
Asp	Leu	Lys	Ala	Lys	Ala	Lys	Trp	Glu	Ala	Trp	Asn	Glu	Asn	Lys	Gly
	50					55					60				
Met	Ser	Lys	Met	Asp	Ala	Met	Arg	Ile	Tyr	Ile	Ala	Lys	Val	Glu	Glu
	65					70					75			80	
Leu	Lys	Lys	Asn	Glu	Ala	Gly									
			85												

<210> 159

<211> 87

<212> PRT

<213> Mus musculus

<400> 159

Met	Ser	Gln	Val	Glu	Phe	Glu	Met	Ala	Cys	Ala	Ser	Leu	Lys	Gln	Leu
1			5				10								15

Lys	Gly	Pro	Val	Ser	Asp	Gln	Glu	Lys	Leu	Leu	Val	Tyr	Ser	Phe	Tyr
			20				25						30		

Lys	Gln	Ala	Thr	Gln	Gly	Asp	Cys	Asn	Ile	Pro	Val	Pro	Pro	Ala	Thr
	35					40						45			

Asp	Val	Arg	Ala	Lys	Ala	Lys	Tyr	Glu	Ala	Trp	Met	Val	Asn	Lys	Gly
	50					55					60				

Met	Ser	Lys	Met	Asp	Ala	Met	Arg	Ile	Tyr	Ile	Ala	Lys	Val	Glu	Glu
	65					70					75			80	

Leu	Lys	Lys	Glu	Pro	Cys										
			85												

<210> 160

<211> 87

<212> PRT

<213> Rattus norvegicus

<400> 160

Met Ser Gln Val Glu Phe Glu Met Ala Cys Ala Ser Leu Lys Gln Leu
1 5 10 15

Lys Gly Pro Leu Ser Asp Gln Glu Lys Leu Leu Val Tyr Ser Phe Tyr
20 25 30

Lys Gln Ala Thr Gln Gly Asp Cys Asn Ile Pro Val Pro Pro Ala Thr
35 40 45

Asp Val Lys Ala Lys Ala Lys Trp Glu Ala Trp Met Val Asn Lys Gly
50 55 60

Met Ser Lys Met Asp Ala Met Arg Ile Tyr Ile Ala Lys Val Glu Glu
65 70 75 80

Leu Lys Lys Asn Glu Thr Cys
85

<210> 161

<211> 80

<212> PRT

<213> Callithrix Jacchus

<400> 161

Leu Ala Arg Thr Ala Leu Lys Gln Leu Lys Gly Pro Leu Ser Asp Gln
1 5 10 15

Asp Lys Leu Leu Leu Tyr Gly Trp Tyr Lys Gln Ala Thr Arg Gly Asp
20 25 30

Cys His Leu Pro Ala Pro Pro Ala Ser Asp Leu Lys Ala Lys Ala Lys
35 40 45

Trp Glu Ala Trp Thr Ala Asn Gln Gly Leu Ser Arg Met Asp Ala Met
50 55 60

Arg Ala Tyr Val Ala Lys Val Glu Glu Leu Thr Arg Lys Glu Ala Gly
65 70 75 80

<210> 162

<211> 59

<212> PRT

<213> Macaca fascicularis

<400> 162

Leu Ala Arg Ala Ala Leu Lys Gln Leu Lys Gly Pro Val Ser Asp Pro
1 5 10 15

Glu Lys Leu Leu Ile Tyr Gly Leu Tyr Lys Gln Ala Thr Gln Gly Asp
20 25 30

Cys Gly Ile Pro Ala Pro Pro Ala Ser Asp Val Lys Ala Arg Ala Lys
35 40 45

Trp Glu Ala Trp Ser Ala Asn Lys Gly Val Ser
50 55

<210> 163

<211> 89

<212> PRT

<213> Homo sapiens

<400> 163

Leu Gln Glu Asp Phe Glu Ala Ala Ala Glu Lys Val Lys Lys Leu Lys
1 5 10 15

Lys Asn Gly Pro Val Lys Pro Ser Asn Glu Glu Lys Leu Lys Leu Tyr
20 25 30

Ser Leu Tyr Lys Gln Ala Thr Val Gly Asp Val Asn Thr Glu Arg Pro
35 40 45

Gly Met Phe Asp Leu Lys Gly Arg Ala Lys Trp Asp Ala Trp Asn Glu

50 55 60
Leu Lys Gly Met Ser Lys Glu Glu Ala Met Lys Ala Tyr Ile Ala Lys
65 70 75 80

Val Glu Glu Leu Ile Ala Lys Tyr Ala
85

<210> 164

<211> 77

<212> PRT

<213> Homo sapiens

<400> 164

Cys Ala Ala Leu Lys Gln Leu Lys Gly Pro Val Ser Asp Gln Glu Lys

1	5	10	15												
Leu	Leu	Val	Tyr	Gly	Leu	Tyr	Lys	Gln	Ala	Thr	Gln	Gly	Asp	Cys	Asp
			20				25							30	
Ile	Pro	Gly	Pro	Pro	Ala	Ser	Asp	Val	Arg	Ala	Arg	Ala	Lys	Trp	Glu
	35						40						45		
Ala	Trp	Ser	Ala	Asn	Lys	Gly	Ala	Ser	Lys	Met	Asp	Ala	Met	Arg	Gly
	50				55					60					
Tyr	Ala	Ala	Lys	Val	Glu	Glu	Leu	Thr	Lys	Lys	Glu	Val			
	65			70				75							

<210> 165

<211> 330

<212> DNA

<213> Homo sapiens

<400> 165

acagaaggaa tgcctggaga gcagcaacag cccagctgcg gccaccatgt ccctgcaggg 60
tgattttgac atggtcacag aagatgtgag gaagctgaaa acaagaccag atgatgaaga 120
actgaaagaa ctttatgggc tttacaaaca agctgtaatt ggaaacatta atattgagtg 180
ttcagaaaatg ctagaattaa aaggcaagggc caaatggaa gcacagaacc cccaaaaagg 240
attgtcagag gaagatatga tgcgtgcctt tatttctaaa gccgaagagc tgatagaaaa 300
atatggaaatt tagaataaaag catatgataaa 330

<210> 166

<211> 88

<212> PRT

<213> Homo sapiens

<400> 166

Met	Ser	Leu	Gln	Ala	Asp	Phe	Asp	Met	Val	Thr	Glu	Asp	Val	Arg	Lys
1				5				10					15		

Leu	Lys	Thr	Arg	Pro	Asp	Asp	Glu	Glu	Leu	Lys	Glu	Leu	Tyr	Gly	Leu
	20						25						30		

Tyr Lys Gln Ala Val Ile Gly Asn Ile Asn Ile Glu Cys Ser Glu Met
35 40 45

Leu Glu Leu Lys Gly Lys Ala Lys Trp Glu Ala Gln Asn Pro Gln Lys
50 55 60

Gly Leu Ser Glu Glu Asp Met Met Arg Ala Phe Ile Ser Lys Ala Glu
65 70 75 80

Glu Leu Ile Glu Lys Tyr Gly Ile
85

<210> 167

<211> 88

<212> PRT

<213> Mus musculus

<400> 167

Met Ser Leu Gln Ala Asp Phe Asp Gln Ala Ala Gln Asp Val Arg Lys
1 5 10 15

Leu Lys Ser Arg Pro Glu Asp Glu Glu Leu Lys Glu Leu Tyr Gly Leu
20 25 30

Tyr Lys Gln Ser Val Ile Gly Asp Ile Asn Ile Ala Cys Pro Ala Met
35 40 45

Leu Asp Leu Lys Gly Lys Ala Lys Cys Glu Ala Trp Asn Leu Gln Lys
50 55 60

Gly Leu Ser Lys Glu Asp Ala Met Cys Ala Tyr Ile Ser Lys Ala Arg
65 70 75 80

Glu Leu Ile Glu Lys Tyr Gly Ile
85

<210> 168

<211> 88

<212> PRT

<213> laughing frog

<400> 168

Met Ser Pro Gln Ala Asp Phe Asp Lys Ala Ala Gly Asp Val Lys Lys
1 5 10 15

Leu Lys Thr Lys Pro Thr Asp Asp Glu Leu Lys Glu Leu Tyr Gly Leu
20 25 30

Tyr Lys Gln Ser Thr Val Gly Asp Ile Asn Ile Glu Cys Pro Gly Met
35 40 45

Leu Asp Leu Lys Gly Lys Ala Lys Trp Asp Ala Trp Asn Leu Lys Lys
50 55 60

Gly Leu Ser Lys Glu Asp Ala Met Ser Ala Tyr Val Ser Lys Ala His
65 70 75 80

Glu Leu Ile Glu Lys Tyr Gly Leu
85

<210> 169

<211> 103

<212> PRT

<213> Anas platrhynchos

<400> 169

Met Phe Gln Ala His Leu Leu Arg Gly Thr Leu Thr Leu Ser Phe Phe
1 5 10 15

Leu His Gln Ala Asp Phe Asp Glu Ala Ala Glu Glu Val Lys Lys Leu
20 25 30

Lys Thr Arg Pro Thr Asp Glu Glu Leu Lys Glu Leu Tyr Gly Phe Tyr
35 40 45

Lys Gln Ala Thr Val Gly Asp Ile Asn Ile Glu Cys Pro Gly Met Leu
50 55 60

Asp Leu Lys Gly Lys Ala Lys Trp Glu Ala Trp Asn Leu Lys Lys Gly
65 70 75 80

Ile Ser Lys Glu Asp Ala Met Asn Ala Tyr Ile Ser Lys Ala Lys Thr
85 90 95

Met Val Glu Lys Tyr Gly Ile
100

<210> 170

<211> 87

<212> PRT

<213> Rana ridibunda

<400> 170

Ser Pro Gln Ala Asp Phe Asp Lys Ala Ala Gly Asp Val Lys Lys Leu
1 5 10 15

Lys Thr Lys Pro Thr Asp Asp Glu Leu Lys Glu Leu Tyr Gly Leu Tyr
20 25 30

Lys Gln Ser Thr Val Gly Asp Ile Asn Ile Glu Cys Pro Gly Met Leu
35 40 45

Asp Leu Lys Gly Lys Ala Lys Trp Asp Ala Trp Asn Leu Lys Lys Gly
50 55 60

Leu Ser Lys Glu Asp Ala Met Ser Ala Tyr Val Ser Lys Ala His Glu
65 70 75 80

Leu Ile Glu Lys Tyr Gly Leu
85

<210> 171

<211> 86

<212> PRT

<213> Homo sapiens

<400> 171

Ser Gln Ala Glu Phe Glu Lys Ala Ala Glu Glu Val Arg His Leu Lys
1 5 10 15

Thr Lys Pro Ser Asp Glu Glu Met Leu Phe Ile Tyr Gly His Tyr Lys
20 25 30

Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met Leu Asp
35 40 45

Phe Thr Gly Lys Ala Lys Trp Asp Ala Trp Asn Glu Leu Lys Gly Thr
50 55 60

Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asn Lys Val Glu Glu Leu
65 70 75 80

Lys Lys Lys Tyr Gly Ile
85

<210> 172

<211> 89

<212> PRT

<213> Homo sapiens

<400> 172

Leu Gln Glu Asp Phe Glu Ala Ala Ala Glu Lys Val Lys Lys Leu Lys
1 5 10 15

Lys Asn Gly Pro Val Lys Pro Ser Asn Glu Glu Lys Leu Lys Leu Tyr
20 25 30

Ser Leu Tyr Lys Gln Ala Thr Val Gly Asp Val Asn Thr Glu Arg Pro
35 40 45

Gly Met Phe Asp Leu Lys Gly Arg Ala Lys Trp Asp Ala Trp Asn Glu

50 55 60
Leu Lys Gly Met Ser Lys Glu Glu Ala Met Lys Ala Tyr Ile Ala Lys
65 70 75 80

Val Glu Glu Leu Ile Ala Lys Tyr Ala
85

<210> 173

<211> 85

<212> PRT

<213> Homo sapiens

<400> 173

Leu Gln Ala Asp Phe Asp Met Val Thr Glu Asp Val Arg Lys Leu Lys
1 5 10 15

Thr Arg Pro Asp Asp Glu Glu Leu Lys Glu Leu Tyr Gly Leu Tyr Lys
20 25 30

Gln Ala Val Ile Gly Asn Ile Asn Ile Glu Cys Ser Glu Met Leu Glu
35 40 45

Leu Lys Gly Lys Ala Lys Trp Glu Ala Gln Asn Pro Gln Lys Gly Leu
50 55 60

Ser Glu Glu Asp Met Met Arg Ala Phe Ile Ser Lys Ala Glu Glu Leu
65 70 75 80

Ile Glu Lys Tyr Gly

85

<210> 174

<211> 1049

<212> DNA

<213> Homo sapiens

<400> 174

taatggcgc acaacatata aagatataat ttgtgacaat cacaacataa agtatggca 60
gcgcgttata gagctataga gcagagattt ttgtatgcta tcaaagctaa atttggatca 120
atttaaacta ggttgttata aatttatgaa gttgattacc tctgtggtaa ccactaaaa 180
tttttttaat tttaattttt atttatttt tgagacggag tctcactctg tctctaaaa 240
aaggtaaga aaattagaag ggtattaaat gatacactac aaaaaaaaaat caatggaata 300
caaaagaagg cagtagtgga ggaaatgagg aacaaaaatg gtataagaca tacagaagga 360
atgcctggag agcagcaaca gcccagctgc ggccaccatg tccctgcagg ctgatttga 420
catggtcaca gaagatgtga ggaagctgaa aacaagacca gatgatggag aactgaaaga 480
actctatggg ctttacaaac aagctgtaat tggaaacatt aatattgagt gttcagaaat 540
gctagattta aaaggcaaaag ccaaattggg agcatggaac ccccaaaaag gattgtcgac 600
ggaagatatg atgcgtgcct ttatttctaa agccgaagag ctgatagaaa aatatggaat 660
ttagaataaa gcatatgata aattttcctt tttgaagcct tcataatggt atcatgacca 720
aacattttaga gttaacgctg ttaactctag gtatcatgta tattttgct attattatga 780
attatactta attagtagta tgctaaaact gcatagttaa ctaaattgta cttgcttaaa 840
ccaggtgtct ttaaaagttc ttttagaaaa gtatttttt tattttata gatttagggg 900
gtacaagtgc agtttgttg catgaacgta tcatgttagt gtgaagtctg ggcttcagt 960
gtccccatca cccagatagt ctacaattgt gcccääagg tacaattgta cattccttac 1020
accttctgtg accatgtcaa aatcagcct 1049

<210> 175

<211> 88

<212> PRT

<213> Homo sapiens

<400> 175

Met Ser Leu Gln Ala Asp Phe Asp Met Val Thr Glu Asp Val Arg Lys
1 5 10 15

Leu Lys Thr Arg Pro Asp Asp Gly Glu Leu Lys Glu Leu Tyr Gly Leu
20 25 30

Tyr Lys Gln Ala Val Ile Gly Asn Ile Asn Ile Glu Cys Ser Glu Met
35 40 45

Leu Asp Leu Lys Gly Lys Ala Lys Trp Glu Ala Trp Asn Pro Gln Lys
50 55 60

Gly Leu Ser Thr Glu Asp Met Met Arg Ala Phe Ile Ser Lys Ala Glu
65 70 75 80

Glu Leu Ile Glu Lys Tyr Gly Ile
85

<210> 176

<211> 89

<212> PRT

<213> Homo sapiens

<400> 176

Leu Gln Glu Asp Phe Glu Ala Ala Glu Lys Val Lys Lys Leu Lys
1 5 10 15

Lys Asn Gly Pro Val Lys Pro Ser Asn Glu Glu Lys Leu Lys Leu Tyr
20 25 30

Ser Leu Tyr Lys Gln Ala Thr Val Gly Asp Val Asn Thr Glu Arg Pro
35 40 45

Gly Met Phe Asp Leu Lys Gly Arg Ala Lys Trp Asp Ala Trp Asn Glu

50 55 60
Leu Lys Gly Met Ser Lys Glu Glu Ala Met Lys Ala Tyr Ile Ala Lys
65 70 75 80

Val Glu Glu Leu Ile Ala Lys Tyr Ala
85

<210> 177

<211> 85

<212> PRT

<213> Homo sapiens

<400> 177

Leu Gln Ala Asp Phe Asp Met Val Thr Glu Asp Val Arg Lys Leu Lys
1 5 10 15

Thr Arg Pro Asp Asp Gly Glu Leu Lys Glu Leu Tyr Gly Leu Tyr Lys
20 25 30

Gln Ala Val Ile Gly Asn Ile Asn Ile Glu Cys Ser Glu Met Leu Asp
35 40 45

Leu Lys Gly Lys Ala Lys Trp Glu Ala Trp Asn Pro Gln Lys Gly Leu
50 55 60

Ser Thr Glu Asp Met Met Arg Ala Phe Ile Ser Lys Ala Glu Glu Leu
65 70 75 80

Ile Glu Lys Tyr Gly
85

<210> 178

<211> 297

<212> DNA

<213> Homo sapiens

<400> 178

tcttccttaa ggctgatttt gacagggctg cagaagatgt gaggaagctg aaagcaagac 60
cagatgatgg agaactgaaa gaactctatg ggcttacaa acaagcaata gttggagaca 120
ttaatattgc gtgtccagga atgcttagatt taaaaggcaa agccaaatgg gaagcatgga 180
acctcaaaaa agggttgtcg acggaagatg cgacgagtgc ctatatttct aaagcaaagg 240
agctgataga aaaatacggta atttagaata cagcatatga ggaatttttc ctttga 297

<210> 179

<211> 87

<212> PRT

<213> Homo sapiens

<400> 179

Phe Leu Lys Ala Asp Phe Asp Arg Ala Ala Glu Asp Val Arg Lys Leu
1 5 10 15

Lys Ala Arg Pro Asp Asp Gly Glu Leu Lys Glu Leu Tyr Gly Leu Tyr
20 25 30

Lys Gln Ala Ile Val Gly Asp Ile Asn Ile Ala Cys Pro Gly Met Leu
35 40 45

Asp Leu Lys Gly Lys Ala Lys Trp Glu Ala Trp Asn Leu Lys Lys Gly
50 55 60

Leu Ser Thr Glu Asp Ala Thr Ser Ala Tyr Ile Ser Lys Ala Lys Glu
65 70 75 80

Leu Ile Glu Lys Tyr Gly Ile
85

<210> 180

<211> 89

<212> PRT

<213> Homo sapiens

<400> 180

Leu Gln Glu Asp Phe Glu Ala Ala Glu Lys Val Lys Lys Leu Lys
1 5 10 15

Lys Asn Gly Pro Val Lys Pro Ser Asn Glu Glu Lys Leu Lys Leu Tyr
20 25 30

Ser Leu Tyr Lys Gln Ala Thr Val Gly Asp Val Asn Thr Glu Arg Pro
35 40 45

Gly Met Phe Asp Leu Lys Gly Arg Ala Lys Trp Asp Ala Trp Asn Glu
50 55 60

Leu Lys Gly Met Ser Lys Glu Glu Ala Met Lys Ala Tyr Ile Ala Lys
65 70 75 80

Val Glu Glu Leu Ile Ala Lys Tyr Ala
85

<210> 181

<211> 85

<212> PRT

<213> Homo sapiens

<400> 181

Leu Lys Ala Asp Phe Asp Arg Ala Ala Glu Asp Val Arg Lys Leu Lys
1 5 10 15

Ala Arg Pro Asp Asp Gly Glu Leu Lys Glu Leu Tyr Gly Leu Tyr Lys
20 25 30

Gln Ala Ile Val Gly Asp Ile Asn Ile Ala Cys Pro Gly Met Leu Asp
35 40 45

Leu Lys Gly Lys Ala Lys Trp Glu Ala Trp Asn Leu Lys Lys Gly Leu
50 55 60

Ser Thr Glu Asp Ala Thr Ser Ala Tyr Ile Ser Lys Ala Lys Glu Leu
65 70 75 80

Ile Glu Lys Tyr Gly
85

<210> 182

<211> 428

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (240)..(428)

<223> wherein n is a g or t

<400> 182

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taccttctca gtgggctccc aggaatcctt gcaacaactg ccagtatgtc tcaggcgttt 120
gagaaagctg ccaaggatat taagcacctt gagaccaagc cagcagatga tgagaggatg 180
ttcatctaca gccgctgcaa acaagcgact gtgcgtact taaatacaga atggccagg 240
atgttagacc tcaaaggcaa ggcaaagcag gatgctggna atgagctgaa agacactgcc 300
aaggaagatg ctgtgaaagc tgatatcaac aaagtagaag agcgaaataa aaaatacaga 360
atataagaga ttggatggg ttgccagcan tgcatttaac ctaaaactgat acaatgcctt 420

tttttccc 428
<210> 183
<211> 86
<212> PRT
<213> Homo sapiens

<400> 183

Met Ser Gln Ala Phe Glu Lys Ala Ala Lys Asp Ile Lys His Leu Glu
1 5 10 15

Thr Lys Pro Ala Asp Asp Glu Arg Met Phe Ile Tyr Ser Arg Cys Lys
20 25 30

Gln Ala Thr Val His Asp Leu Asn Thr Glu Trp Pro Arg Met Leu Asp
35 40 45

Leu Lys Gly Lys Ala Lys Gln Asp Ala Gly Asn Glu Leu Lys Asp Thr
50 55 60

Ala Lys Glu Asp Ala Val Lys Ala Asp Ile Asn Lys Val Glu Glu Arg
65 70 75 80

Asn Lys Lys Tyr Arg Ile
85

<210> 184

<211> 87

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
construct; chemically synthesized

<400> 184

Met Ser Gln Ala Glu Phe Asp Lys Ala Ala Glu Glu Val Lys His Leu
1 5 10 15

Lys Thr Lys Pro Ala Asp Glu Glu Met Leu Phe Ile Tyr Ser His Tyr
20 25 30

Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met Leu
35 40 45

Asp Phe Lys Gly Lys Ala Lys Trp Asp Ala Trp Asn Glu Leu Lys Gly
50 55 60

Thr Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asp Lys Val Glu Glu
65 70 75 80

Leu Lys Lys Tyr Gly Ile
85

<210> 185

<211> 87

<212> PRT

<213> Sus scrofa

<400> 185

Met Ser Gln Ala Glu Phe Glu Lys Ala Ala Glu Glu Val Lys Asn Leu
1 5 10 15

Lys Thr Lys Pro Ala Asp Asp Glu Met Leu Phe Ile Tyr Ser His Tyr
20 25 30

Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Ile Leu
35 40 45

Asp Leu Lys Gly Lys Ala Lys Trp Asp Ala Trp Asn Gly Leu Lys Gly
50 55 60

Thr Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asn Lys Val Glu Glu
65 70 75 80

Leu Lys Lys Tyr Gly Ile
85

<210> 186

<211> 86

<212> PRT

<213> Canis familiaris

<400> 186

Ser Gln Ala Glu Phe Asp Lys Ala Ala Glu Asp Val Lys His Leu Lys
1 5 10 15

Thr Lys Pro Ala Asp Asp Glu Met Leu Tyr Ile Tyr Ser His Tyr Lys

20 25 30

Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Leu Leu Asp
35 40 45

Leu Arg Gly Lys Ala Lys Trp Asp Ala Trp Asn Gln Leu Lys Gly Thr
50 55 60

Ser Lys Glu Asp Ala Met Lys Ala Tyr Val Asn Lys Val Glu Asp Leu
65 70 75 80

Lys Lys Lys Tyr Gly Ile
85

<210> 187

<211> 86

<212> PRT

<213> Bos taurus

<400> 187

Ser Gln Ala Glu Phe Asp Lys Ala Ala Glu Glu Val Lys His Leu Lys
1 5 10 15

Thr Lys Pro Ala Asp Glu Glu Met Leu Phe Ile Tyr Ser His Tyr Lys
20 25 30

Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met Leu Asp
35 40 45

Phe Lys Gly Lys Ala Lys Trp Asp Ala Trp Asn Glu Leu Lys Gly Thr
50 55 60

Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asp Lys Val Glu Glu Leu
65 70 75 80

Lys Lys Lys Tyr Gly Ile
85

<210> 188

<211> 86

<212> PRT

<213> Sus scrofa

<400> 188

Ser Gln Ala Glu Phe Glu Lys Ala Ala Glu Glu Val Lys Asn Leu Lys
1 5 10 15

Thr Lys Pro Ala Asp Asp Glu Met Leu Phe Ile Tyr Ser His Tyr Lys
20 25 30

Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Ile Leu Asp
35 40 45

Leu Lys Gly Lys Ala Lys Trp Asp Ala Trp Asn Gly Leu Lys Gly Thr
50 55 60

Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asn Lys Val Glu Glu Leu
65 70 75 80

Lys Lys Lys Tyr Gly Ile
85

<210> 189

<211> 89

<212> PRT

<213> Homo sapiens

<400> 189

Leu Gln Glu Asp Phe Glu Ala Ala Ala Glu Lys Val Lys Lys Leu Lys
1 5 10 15

Lys Asn Gly Pro Val Lys Pro Ser Asn Glu Glu Lys Leu Lys Leu Tyr
20 25 30

Ser Leu Tyr Lys Gln Ala Thr Val Gly Asp Val Asn Thr Glu Arg Pro
35 40 45

Gly Met Phe Asp Leu Lys Gly Arg Ala Lys Trp Asp Ala Trp Asn Glu

50 55 60
Leu Lys Gly Met Ser Lys Glu Glu Ala Met Lys Ala Tyr Ile Ala Lys
65 70 75 80

Val Glu Glu Leu Ile Ala Lys Tyr Ala
85

<210> 190

<211> 85

<212> PRT

<213> Homo sapiens

<400> 190

Met Ser Gln Ala Phe Glu Lys Ala Ala Lys Asp Ile Lys His Leu Glu
1 5 10 15

Thr Lys Pro Ala Asp Asp Glu Arg Met Phe Ile Tyr Ser Arg Cys Lys
20 25 30

Gln Ala Thr Val His Asp Leu Asn Thr Glu Trp Pro Arg Met Leu Asp
35 40 45

Leu Lys Gly Lys Ala Lys Gln Asp Ala Gly Asn Glu Leu Lys Asp Thr
50 55 60

Ala Lys Glu Asp Ala Val Lys Ala Asp Ile Asn Lys Val Glu Glu Arg
65 70 75 80

Asn Lys Lys Tyr Arg
85

<210> 191

<211> 1979

<212> DNA

<213> Homo sapiens

<400> 191

agtaggaagc cgccccgtgg tggcgagaga ggaccaggc gtcctagcag tggccgcgc 60
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agtactccta tcttgtttct ccacctgttc gggagttgga gatgtgcacc taaaggaggc 180
gcacatctgggg acggacacat ctggcactga ggccctcgcc acctgcctcg ccacctggcg 240
accctgaccc caccacactg ctttggggta ggaaaaggag gtcctcaac cacaacttct 300
gacctcccag ggtgtctgag gcctctaaag agcttagttt gcccctctgg gaagtgaatc 360
cttggcttat ggtgccgggg ggaccctgga ggccccccta cacgaaggct gtttttgca 420
gagtcgctca aaagttagggc cccaggcgc gcagcagcat gggcaccgag aaagaaagcc 480
cagagccccga ctgccagaaa cagttccagg ctgcagttag cgtcatccag aacctgcccc 540
agaacggttc ttaccggccc tcctatgaag agatgctgcg attctacagt tactacaagc 600
aggccaccat gggccctgc ctggcccccc ggccgggtt ctgggacccc attggacgat 660
ataagtggga cgcctggAAC agtctggca agatgagcag ggaggaggcc atgtctgcct 720

acatcactga aatgaaactg gtggcacaga aggtgatcga cacagtgccctgggtgagg 780
tggcagagga catgttttgt tacttcgagc ccctgtacca ggtgatccct gacatgccga 840
ggcccccaga gaccttcctg agaagggtca caggttgaa agagcaggtt gtgaatggag 900
atgttggggc tgtttcagag cctccctgcc tcccccaagga accggcaccc ccaagcccag 960
agtcccattc acccagggac ctggactccg aggtttctg tgattccctg gagcagctgg 1020
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acagccccgt gccccccaca aagaaagagg ggttgcgggg cagcccgccg gggccccagg 1140
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aggcgagggt gcagagcctg gagagcatgc cccggccccc tgagcagagg ccgcagccca 1260
ggcccaagtgc tcggccatgg ccccttgggc tccccggggcc cgccgtgc tttccctcc 1320
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cagtggaggg gtctctgcag ccaactgaga ctatcttgct gtgcctgag cttcccttagg 1440
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tccccgggtgc tgggttggcc gtgactcggg ggccggggcga tcgggtctca gcccctgc 1680
tccccagtct ctgggtcacc cgaattttcc cacccctgct tctcccccag gaggttgagc 1740
tcttgagcaa gttggactt gggctggggc ctggaagaat gattggctgg gagggccgg 1800
gagggaggcc aggaggcccg gaccagttgg gaggagttag caggccccgg gggagggggga 1860
tgagcgcagt ttgctcgctt tcctccctg ccggcccccct ccgcacccac acacactcg 1920
gacgtcttca ttgaagattc acttacaaag gaatgtttca ctaaataaaa gaaaaccag 1979

<210> 192

<211> 305

<212> PRT

<213> Homo sapiens

<400> 192

Met Gly Thr Glu Lys Glu Ser Pro Glu Pro Asp Cys Gln Lys Gln Phe
1 5 10 15

Gln Ala Ala Val Ser Val Ile Gln Asn Leu Pro Lys Asn Gly Ser Tyr

20	25	30
Arg Pro Ser Tyr Glu Glu Met Leu Arg Phe Tyr Ser Tyr Tyr Lys Gln		
35	40	45
Ala Thr Met Gly Pro Cys Leu Val Pro Arg Pro Gly Phe Trp Asp Pro		
50	55	60
Ile Gly Arg Tyr Lys Trp Asp Ala Trp Asn Ser Leu Gly Lys Met Ser		
65	70	75
Arg Glu Glu Ala Met Ser Ala Tyr Ile Thr Glu Met Lys Leu Val Ala		
85	90	95
Gln Lys Val Ile Asp Thr Val Pro Leu Gly Glu Val Ala Glu Asp Met		
100	105	110
Phe Gly Tyr Phe Glu Pro Leu Tyr Gln Val Ile Pro Asp Met Pro Arg		
115	120	125
Pro Pro Glu Thr Phe Leu Arg Arg Val Thr Gly Trp Lys Glu Gln Val		
130	135	140
Val Asn Gly Asp Val Gly Ala Val Ser Glu Pro Pro Cys Leu Pro Lys		
145	150	155
160		
Glu Pro Ala Pro Pro Ser Pro Glu Ser His Ser Pro Arg Asp Leu Asp		
165	170	175
Ser Glu Val Phe Cys Asp Ser Leu Glu Gln Leu Glu Pro Glu Leu Val		
180	185	190
Trp Thr Glu Gln Arg Ala Ala Ser Gly Gly Lys Arg Asp Pro Arg Asn		
195	200	205
Ser Pro Val Pro Pro Thr Lys Lys Glu Gly Leu Arg Gly Ser Pro Pro		
210	215	220
Gly Pro Gln Glu Leu Asp Val Trp Leu Leu Gly Thr Val Arg Ala Leu		
225	230	235
240		
Gln Glu Ser Met Gln Glu Val Gln Ala Arg Val Gln Ser Leu Glu Ser		
245	250	255
Met Pro Arg Pro Pro Glu Gln Arg Pro Gln Pro Arg Pro Ser Ala Arg		
260	265	270
Pro Trp Pro Leu Gly Leu Pro Gly Pro Ala Leu Leu Phe Phe Leu Leu		
275	280	285
Trp Pro Phe Val Val Gln Trp Leu Phe Arg Met Phe Arg Thr Gln Lys		
290	295	300
Arg		
305		

<210> 193

<211> 305

<212> PRT

<213> Homo sapiens

<400> 193

Met Gly Thr Glu Lys Glu Ser Pro Glu Pro Asp Cys Gln Lys Gln Phe
1 5 10 15

Gln Ala Ala Val Ser Val Ile Gln Asn Leu Pro Lys Asn Gly Ser Tyr
20 25 30

Arg Pro Ser Tyr Glu Glu Met Leu Arg Phe Tyr Ser Tyr Tyr Lys Gln
35 40 45

Ala Thr Met Gly Pro Cys Leu Val Pro Arg Pro Gly Phe Trp Asp Pro
50 55 60

Ile Gly Arg Tyr Lys Trp Asp Ala Trp Asn Ser Leu Gly Lys Met Ser
65 70 75 80

Arg Glu Glu Ala Met Ser Ala Tyr Ile Thr Glu Met Lys Leu Val Ala
85 90 95

Gln Lys Val Ile Asp Thr Val Pro Leu Gly Glu Val Ala Glu Asp Met
100 105 110

Phe Gly Tyr Phe Glu Pro Leu Tyr Gln Val Ile Pro Asp Met Pro Arg
115 120 125

Pro Pro Glu Thr Phe Leu Arg Arg Val Thr Gly Trp Lys Glu Gln Val
130 135 140

Val Asn Gly Asp Val Gly Ala Val Ser Glu Pro Pro Cys Leu Pro Lys
145 150 155 160

Glu Pro Ala Pro Pro Ser Pro Glu Ser His Ser Pro Arg Asp Leu Asp
165 170 175

Ser Glu Val Phe Cys Asp Ser Leu Glu Gln Leu Glu Pro Glu Leu Val
180 185 190

Trp Thr Glu Gln Arg Ala Ala Ser Gly Gly Lys Arg Asp Pro Arg Asn
195 200 205

Ser Pro Val Pro Pro Thr Lys Lys Glu Gly Leu Arg Gly Ser Pro Pro
210 215 220

Gly Pro Gln Glu Leu Asp Val Trp Leu Leu Gly Thr Val Arg Ala Leu
225 230 235 240

Gln Glu Ser Met Gln Glu Val Gln Ala Arg Val Gln Ser Leu Glu Ser
245 250 255

Met Pro Arg Pro Pro Glu Gln Arg Pro Gln Pro Arg Pro Ser Ala Arg
260 265 270

Pro Trp Pro Leu Gly Leu Pro Gly Pro Ala Leu Leu Phe Phe Leu Leu
275 280 285

Trp Pro Phe Val Val Gln Trp Leu Phe Arg Met Phe Arg Thr Gln Lys
290 295 300

Arg
305

<210> 194

<211> 533

<212> PRT

<213> Bos taurus

<400> 194

Met Phe Gln Phe His Ala Gly Ser Trp Glu Ser Trp Cys Cys Cys Cys
1 5 10 15

Cys Leu Ile Pro Gly Asp Arg Pro Trp Asp Arg Gly Arg Arg Trp Arg
20 25 30

Leu Glu Met Arg His Thr Arg Ser Val His Glu Thr Arg Phe Glu Ala
35 40 45

Ala Val Lys Val Ile Gln Ser Leu Pro Lys Asn Gly Ser Phe Gln Pro
50 55 60

Thr Asn Glu Met Met Leu Lys Phe Tyr Ser Phe Tyr Lys Gln Ala Thr
65 70 75 80

Glu Gly Pro Cys Lys Leu Ser Lys Pro Gly Phe Trp Asp Pro Val Gly
85 90 95

Arg Tyr Lys Trp Asp Ala Trp Ser Ser Leu Gly Asp Met Thr Lys Glu
100 105 110

Glu Ala Met Ile Ala Tyr Val Glu Glu Met Lys Lys Ile Leu Glu Thr
115 120 125

Met Pro Met Thr Glu Lys Val Glu Glu Leu Leu His Val Ile Gly Pro
130 135 140

Phe Tyr Glu Ile Val Glu Asp Lys Lys Ser Gly Arg Ser Ser Asp Leu
145 150 155 160

Thr Ser Val Arg Leu Glu Lys Ile Ser Lys Cys Leu Glu Asp Leu Gly
165 170 175

Asn Val Leu Ala Ser Thr Pro Asn Ala Lys Thr Val Asn Gly Lys Ala
180 185 190

Glu Ser Ser Asp Ser Gly Ala Glu Ser Glu Glu Glu Ala Ala Gln Glu
195 200 205

Asp Pro Lys Arg Pro Glu Pro Arg Asp Ser Asp Lys Lys Met Met Lys
210 215 220

Lys Ser Ala Asp His Lys Asn Leu Glu Ile Ile Val Thr Asn Gly Tyr
225 230 235 240

Asp Lys Asp Ser Phe Val Gln Gly Val Gln Asn Ser Ile His Thr Ser
245 250 255

Pro Ser Leu Asn Gly Arg Cys Thr Glu Glu Val Lys Ser Val Asp Glu
260 265 270

Asn Leu Glu Gln Thr Gly Lys Thr Val Val Phe Val His Gln Asp Val
275 280 285

Asn Ser Asp His Val Glu Asp Ile Ser Gly Ile Gln His Leu Thr Ser
290 295 300

Asp Ser Asp Ser Glu Val Tyr Cys Asp Ser Met Glu Gln Phe Gly Gln
305 310 315 320

Glu Glu Ser Leu Asp Gly Phe Ile Ser Asn Asn Gly Pro Phe Ser Tyr
325 330 335

Tyr Leu Gly Gly Asn Pro Ser Gln Pro Leu Glu Ser Ser Gly Phe Pro
340 345 350

Glu Ala Val Gln Gly Leu Pro Gly Asn Gly Ser Pro Glu Asp Met Gln
355 360 365

Gly Ala Val Val Glu Gly Lys Gly Glu Val Lys Arg Gly Gly Glu Asp
370 375 380

Gly Gly Ser Asn Ser Gly Ala Pro His Arg Glu Lys Arg Ala Gly Glu
385 390 395 400

Ser Glu Glu Phe Ser Asn Ile Arg Arg Gly Arg Gly His Arg Met Gln
405 410 415

His Leu Ser Glu Gly Ser Lys Gly Arg Gln Val Gly Ser Gly Gly Asp
420 425 430

Gly Glu Arg Trp Gly Ser Asp Arg Gly Ser Arg Gly Ser Leu Asn Glu
435 440 445

Gln Ile Ala Leu Val Leu Met Arg Leu Gln Glu Asp Met Gln Asn Val
450 455 460

Leu Gln Arg Leu His Lys Leu Glu Met Leu Ala Ala Ser Gln Ala Lys
465 470 475 480

Ser Ser Ala Leu Gln Thr Ser Asn Gln Pro Thr Ser Pro Arg Pro Ser
485 490 495

Trp Trp Pro Phe Glu Met Ser Pro Gly Ala Leu Thr Phe Ala Ile Ile
500 505 510

Trp Pro Phe Ile Ala Gln Trp Leu Val His Leu Tyr Tyr Gln Arg Arg
515 520 525

Arg Arg Lys Leu Asn
530

<210> 195

<211> 195

<212> PRT

<213> Homo sapiens

<400> 195

Met Asn Arg Thr Ala Met Arg Ala Ser Gln Lys Asp Phe Glu Asn Ser
1 5 10 15

Met Asn Gln Val Lys Leu Leu Lys Lys Asp Pro Gly Asn Glu Val Lys
20 25 30

Leu Lys Leu Tyr Ala Leu Tyr Lys Gln Ala Thr Glu Gly Pro Cys Asn
35 40 45

Met Pro Lys Pro Gly Val Phe Asp Leu Ile Asn Lys Ala Lys Trp Asp
50 55 60

Ala Trp Asn Ala Leu Gly Ser Leu Pro Lys Glu Ala Ala Arg Gln Asn
65 70 75 80

Tyr Val Asp Leu Val Ser Ser Leu Ser Pro Ser Leu Glu Ser Ser Ser
85 90 95

Gln Val Glu Pro Gly Thr Asp Arg Lys Ser Thr Gly Phe Glu Thr Leu
100 105 110

Val Val Thr Ser Glu Asp Gly Ile Thr Lys Ile Met Phe Asn Arg Pro
115 120 125

Lys Lys Lys Asn Ala Ile His Thr Glu Met Tyr His Glu Ile Met Arg
130 135 140

Ala Leu Lys Ala Ala Ser Lys Asp Asp Ser Ile Ile Thr Val Leu Thr
145 150 155 160

Gly Asn Gly Asp Tyr Tyr Ser Ser Gly Asn Asp Leu Thr Asn Phe Thr
165 170 175

Asp Ile Pro Pro Gly Gly Val Glu Glu Lys Ala Lys Asn Asn Ala Val
180 185 190

Leu Leu Arg
195

<210> 196

<211> 89

<212> PRT

<213> Homo sapiens

<400> 196

Leu Gln Glu Asp Phe Glu Ala Ala Glu Lys Val Lys Lys Leu Lys
1 5 10 15

Lys Asn Gly Pro Val Lys Pro Ser Asn Glu Glu Lys Leu Lys Leu Tyr
20 25 30

Ser Leu Tyr Lys Gln Ala Thr Val Gly Asp Val Asn Thr Glu Arg Pro
35 40 45

Gly Met Phe Asp Leu Lys Gly Arg Ala Lys Trp Asp Ala Trp Asn Glu

50 55 60
Leu Lys Gly Met Ser Lys Glu Glu Ala Met Lys Ala Tyr Ile Ala Lys
65 70 75 80

Val Glu Glu Leu Ile Ala Lys Tyr Ala
85

<210> 197

<211> 88

<212> PRT

<213> Homo sapiens

<400> 197

Cys Gln Lys Gln Phe Gln Ala Ala Val Ser Val Ile Gln Asn Leu Pro

1 5 10 15
Lys Asn Gly Ser Tyr Arg Pro Ser Tyr Glu Glu Met Leu Arg Phe Tyr
20 25 30
Ser Tyr Tyr Lys Gln Ala Thr Met Gly Pro Cys Leu Val Pro Arg Pro
35 40 45
Gly Phe Trp Asp Pro Ile Gly Arg Tyr Lys Trp Asp Ala Trp Asn Ser
50 55 60
Leu Gly Lys Met Ser Arg Glu Glu Ala Met Ser Ala Tyr Ile Thr Glu
65 70 75 80
Met Lys Leu Val Ala Gln Lys Val
85

<210> 198

<211> 20

<212> PRT

<213> Homo sapiens

<400> 198

Gln Ala Thr Met Gly Pro Cys Leu Val Pro Arg Pro Gly Phe Trp Asp
1 5 10 15

Pro Ile Gly Arg
20

<210> 199

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
construct; chemically synthesized

<400> 199

ataagacata cagaaggaat gcctgga

27

<210> 200

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
construct; chemically synthesized

<400> 200

tataagacat acagaaggaa tgccctgg

27

<210> 201

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
construct; chemically synthesized

<400> 201

ggtggtaaat gtccttttg tttgttt

27

<210> 202

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
construct; chemically synthesized

B1
WT
<400> 202

acatcaagtt aacagtatgc ctctccc

27

TRA 1736116v1

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